



JANUARY 1990

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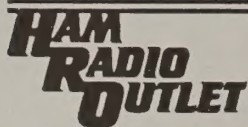


Our New Year's Child
See Page 50



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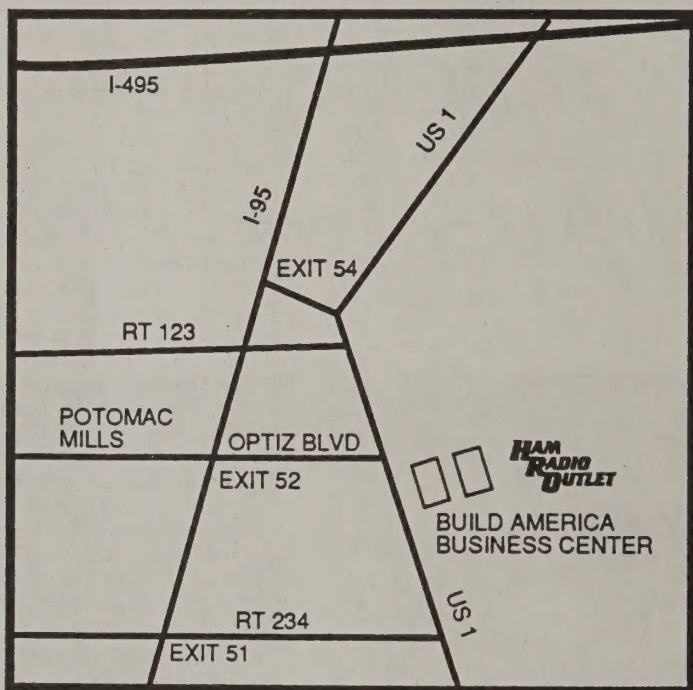
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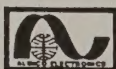
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EDITORIAL

The beginning of a New Year brings a review of the successes of the past year and a rash of good resolutions for doing better in the future. We have had our problems in 1989 and we are painfully aware of the room for improvement! We're just hoping most of major troubles are behind us now!

The power failure we reported last month has mushroomed into a real catastrophe! It threw the computer into a tailspin, burned out the toner fusing unit in the laser printer, and blew out a switch to an overhead light. I continue to have frequent, brief power failures for no apparent reason and have had to buy an uninterruptable power supply to get me through. There's also trouble using the new fonts (see the poem on page 53) and right now I can't use italics and the word spacing is bad!. Thanks for your patience and tolerance throughout this trying time. I hope to get it all resolved by next month. See page 48.

Foot in Mouth Again!

My sense of humor has been assailed by some people who took offense at the Shack Sale that was run last month purportedly "Looking for a Good Woman." I thought it was hilarious when I saw it in the Raleigh Amateur Radio Society Newsletter, and I just had to pick it up for Auto-Call. It was so obviously intended to be humorous, and I saw nothing sexist about it. But I do apologies to those people who felt it should not have been run.

Do let us know whenever you find **anything** in Auto-Call that you feel is inappropriate, and let us know when you find errors that can be corrected. We can't correct problems when we don't recognize they exist. Constructive criticism is always welcome. Your input is always welcome, too.

Best wishes for a happy, healthy, productive, and prosperous New Year.

Ethel Smith, K4LMB
Auto-Call Editor

INDEX

COLUMNS

ARRL REPORT	9
FCC HIGHLIGHTS	7
PUBLIC SERVICE REPORT	13
TRAINING	21
VOLUNTEER EXAMINER COOP.	19
WANT ADS	57

SPECIAL FEATURES

Amateur Radio in the USSR	23
Have Bug - Will Travel	29
Nostalgia - Amateur Radio in the 30s	37
Congratulations	35
Ham-of-the-Month- WB3KIW	33
H-O-M Nominations Criteria	34
Silent Keys	36
ARRL Division Leadership	22
Area Emergency Coordinators	17
Emergency Traffic Nets	18
Widow's Assistance Program	48

COMING EVENTS

5

CLUB REPORTS

Anne Arundel Radio Club	51
Baltimore Radio Amateurs TV Soc.	42
Laurel Amateur Radio Club	50
Maryland Mobileers ARC	40
Metropolitan Communications Net	46
Metrovision ATV Club	39
Montgomery Amateur Radio Club	55
Mount Vernon Amateur Radio Club	47
National Capital DX Assn.	45
Pentagon Amateur Radio Club	43
Potomac Valley Radio Club	49
QCWA Shenandoah Chapter #137	41
Rock Creek Amateur Radio Assn.	48
Shenandoah Valley ARC	52
Southern Maryland ARC	54
Vienna Wireless Association	53

ADVERTISERS

Amateur Radio Center	59
Collier Corporation	32
EEB	28
Ham Radio Outlet (EGE)	2
G & G	56
Maryland Radio	6
RF Connection	8
Virginia Micro	30
Serio & Company CPA	60
Stevens Chevrolet	59

Coming Events

1990

- Jan. 14 Richmond Frostfest XIII, Virginia State Fairgrounds, Richmond, VA
 (See Page 31)
- Feb. 25 Vienna Winterfest, Vienna, Virginia. (See Page 58)
- Feb 25 Fayetteville, WV 13th Annual Hamfest
- March 4 York Hamfest; Dover Firehall, Dover, Pennsylvania
- March 17 **QCWA/FAR ANNUAL SPRING BANQUET, Ft. Meyer Officers Club**
 For All Area Amateurs. Advance Reservations Required
 Speaker will be Bruce Brown, WA9GVK
 Control and Communications Agency
 Watch for details. Advance Reservations required.
- March 25 * Timonium Hamfest, Timonium Maryland
- March 31 Charleston, WV Hamfest/Computer Show
- April 27-29 Dayton Hamvention, Dayton, Ohio
- May 27 * Maryland FM Association Hamfest, Friendship, MD
- May 27 * Roanoke, VA 30th RVARC Mayfest
- June 8-10 ARRL National Convention, Kansas City, Mo
- June 3 Manassas Hamfest, Manassas, VA
- June 17 * Frederick Hamfest, Frederick, MD
- July 7 * Jackson's Mill Hamfest/State Radio Council
- July 21 * Bluefield Hamfest, Bluefield, WV
- July 29 **BRATS HAMFEST, Timonium, MD** (See Page 59)
- Aug. 5 * Winchester 41st Hamfest, Berryville, VA
- Sept 9 * **Foundation For Amateur Radio Hamfest,**
 Gaithersburg, MD
- Sept 29 * TARA Ganfest, Huntington, WV
- Oct 14 * CARA 13th Annual Hamfest, Howard County, MD
- Oct 12-13 QCWA National Convention, Kansas City, Mo

Thanks to the Repeater Journal (via KI4MB) for many of the listings.
Dates shown with * have not been confirmed but are based on past schedules.
Hamfest sponsors are urged to send update information for publication.

Please keep Auto-Call advised of important Coming Events.
We are anxious to provide our readers with timely information

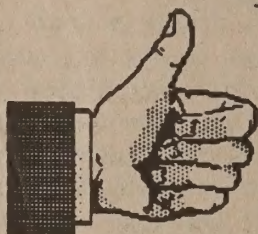
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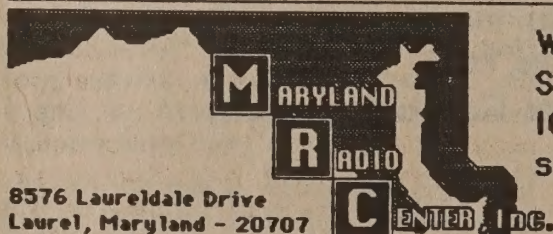


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- Computer BBS 24 Hrs/day
- Used/Consignment sales

FCC HIGHLIGHTS

by Bill Grenfell W4GF

The FCC has "... received 41 responses to its wide-ranging HF letter of Inquiry, which looks into unlawful or excessive third-party traffic, phone-patch, CW training and bulletin operations on the 20 meter band." ... In October FCC Special Services Division chief Robert McNamara sent the letter to 19 hams and organizations believed to be involved in the high-pressure disputes over these different usages of the band." The responses contain wildly varying accounts of the situation." At one extreme, some commenters believe that no problem exists." Others plead for rule changes and rapid FCC enforcement to stem flagrant rule violations that threaten the total destruction of the service." The majority believes nets and patches are useful, that the benefits outweigh the drawbacks, and that a handful of lids are ruining the fun for everybody else." At the center of attention are two Amateurs." One is ... KV4FZ whose transmissions the letters allege are "... jamming communications with bizarre lectures over the propriety of messages and patches."

"The other ham in the middle of the dispute is ... K1MAN, manager of the international Amateur Radio Network..." His "... daily, multi-band broadcasts are often cited as repetitious spectrum wastage instead of legitimate Amateur news bulletins." (ARRL Letter, 12/1/89); (W5YI Report, 12/01/89). See also the first paragraph of FCC HIGHLIGHTS, 11/05/89.

A Corpus Christi General Class Amateur licensee has been fined \$300 by the FCC for "... attempting to obtain an Amateur service license by fraudulent means." He qualified for General Class in August '88 and submitted a new application for upgrade to Advanced Class in June '89 with a false Certificate of Successful Completion of Examination attached. The CSCE he submitted was an altered photocopy of his '88 General class CSCE. (W5YI Report, 12/01/89).

On November 28, 1989, the FCC adopted a Notice of Proposed Rule Making, Docket PR 89-552, allocating the use of 220-222 MHz by Private Land Mobile services. Pending adoption of appropriate Land Mobile rules, Amateur stations may continue operation in the 220-222 MHz segment.

On October 12, the U.S. and the Federated States of Micronesia entered into an Amateur Radio third party agreement which allows amateurs in both countries to relay personal messages in behalf of non-amateurs. Communications relating directly to the safety of life or property may be handled by Amateur stations in the two countries. (ARRL Letter, 10/24/89; Westlink Report, 10/10/89).

"Thank you for your recent letter concerning the proposed fees on Amateur Radio (ham) operators. I agree that hams often provide valuable public service in times of emergency and that many school children become introduced to science and engineering through their introduction to ham radio. Recognizing this, I have spoken with Senator Levin and have agreed to work with him to strike these fees from the current legislation. With kindest regards, I am, Sincerely Ernest F. Hollings, Chairman." Senator Hollings is Chairman of the Committee on Commerce, Science and Transportation. (W5YI Report, 11/15/89). The fees proposed were \$30 per application. The House-Senate Conference Report "strikes all of the fees for Amateur Radio licenses." (ARRL Letters: 10/10/89 and 12/1/89).

END-OF-MONTH LICENSE TOTALS

	SEP 1989	OCT 1989
EXTRA	49,545	49,883
ADVANCED	101,514	101,725
GENERAL	116,496	116,797
TECHNICIAN	112,631	113,786
NOVICE	84,614	84,780
TOTALS	464,800	466,971

(Continued)

FCC Highlights - Continued

THE LATEST CALLS ISSUED FOR
THE STATESIDE, ALASKA AND
HAWAII CALL AREAS WERE:
AS OF 1 NOV 1989

EXTRA	ADVANCED	GENERAL/ TECH.	NOVICE
NZ1P	KC1QW	N1HBP	KA1UQD
WU2H	KE2QE	N2KAM	KB2ISS
NX3G	KD3PV	N3HPO	KA3VHS
AB4RM	KM4ZZ	N4XHB	KC4MZT
AA5OQ	KG5ZR	N5PNP	KB5KXU
A6SA	KK6BZ	N6WUU	KC6GQO
AA7CF	KF7XY	N7NTQ	KB7IWN
WX8A	KF8CE	N8LMP	KB8IIT
WM9F	KE9ST	N9JAI	KB9DNF
WX0Y	KF0GC	N0LFA	KB0FJN
HAWAII	AH6KB*	NH6VC	WH6CFU
ALASKA	AL7LP*	NL7SV	WL7BVU

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By Public Notice dated 11/20/89 the FCC announced that a new version of Form 610, "Application for Amateur Radio Station and/or Operator License" has been submitted to the Office of Management and Budget for the required review and clearance. The current Form 610 carries a 12/31/89 expiration date. (W5YI, Report 12/01/89).

"The FCC announced on October 31 that effective January 1, 1990, the maximum allowable reimbursement fee for an Amateur operator license examination will be \$4.96. "This amount is based upon a 4.3% increase in the Dept. of Labor Consumer Price Index." (W5YI Report, 11/15/89).

Seeking alternative relief at the Federal level from state and local so-called scanner laws, the ARRL has asked the FCC (Part 97 Rules re-write) to adopt a rule which would provide that: "...any station apparatus may be used in an Amateur station, fixed, mobile or portable, whether or not such apparatus is incidentally capable of operation on frequencies assigned to another service." (W5YI Report, 11/15/89),

A new Costa Mesa city, CA ordinance for Amateur antennas recognizes the fact that FCC's "PRB-1" preempts state and local zoning regulations which seek to preclude Amateur Radio communications. (ARRL Letter, 10/24/89).

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The R.F. Connection

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-290

American Radio Relay League Report

By John Swafford -- W4HU

This ARRL Report provides a brief summary of information published in the ARRL LETTER and other reports. The LETTER provides timely news of interest to active Radio Amateurs. Any League member may subscribe to the ARRL LETTER.

NO FEE FOR AMATEUR LICENSES!

The joint House-Senate Conference Committee, reviewing both versions of the Omnibus Budget Reconciliation Act of 1989, has approved deletion of the Amateur license fees from the legislation.

In its report released on November 21, the Conference Committee stated: "Both the House bill and the Senate bill include fees on licensees in the Amateur radio service. The Conference Report strikes all of the fees for Amateur radio licensees. The Conferees recognize that Amateur licensees do not operate for profit and play an important public safety role in times of disaster or emergency."

In the early morning hours of November 22, both Houses of Congress adopted the Conference version of the bill sending it to President Bush for signature.

In the current budgetary environment, avoiding fees altogether is an enormous accomplishment. ARRL congratulates all who played an active role in writing to their Senators and Representatives helping in this effort. Look for an upcoming QST article that will detail how Amateurs won this important battle.

FCC SEEKS INPUT/ASSISTANCE IN RESOLUTION OF AMATEUR DISPUTE. On October 11, FCC Special Services Division Chief Robert H. McNamara wrote to a number of individual Amateurs seeking information and comments on phone patches, infor-

mation bulletins and over-the-air telegraphy practice. The letter requested information and insight that could help bring a resolution to "the unfortunate continuing over-the-air dispute that takes place on the Amateur 20 meter band . . . , "a dispute" . . . which is jeopardizing international goodwill -- a fundamental principle of the rules for the Amateur service in the United States . . ." One recipient of Mr McNamara's letter was W1AW Trustee John Lindholm, W1XX.

ARRL's response was submitted on November 15, by Counsel Chris Imlay, N3AKD in behalf of Mr Lindholm as well as the ARRL. It begins with pertinent background information --

"Your letter correctly characterizes as unfortunate the over-the-air disputes that have arisen concerning certain operating practices that have come to be regarded as controversial. However, the League knows of no particular reason to include 'telegraphy practice' in the category of controversial operating practices. As will be discussed, the code practice transmissions from station W1AW continue to be widely used and appreciated.

" . . . communications on behalf of third parties has been a part of Amateur Radio from its earliest beginnings in the United States. The very basis for the formation of the League in 1914 was to organize Amateurs to relay messages on one another's behalf in order to overcome the limited range of the Amateur stations of the day.

"It was not until the 1930's that international limitations were placed on Amateur traffic, at the insistence of European governments whose telecommunications monopoly was a source of considerable revenue. It was not until 1972 that the FCC specifically prohibited 'business communications.' The imposition of these restrictions was itself quite controversial because it put Amateurs,

ARRL Report - Continued

for the first time, in the position of having to evaluate the content of the messages they were relaying.

"Other background essential to an understanding of the issues raised concerns the concept of interference within the Amateur Radio Service and the extent to which operators are obliged to avoid interfering with one another. Willful and malicious interference is a violation of the rules, but interference that is merely a byproduct of normal operating is not. In the crowded HF Amateur bands, avoiding causing unnecessary interference to others is extremely important to efficient operation; but a tolerance for interference and a willingness to cope with it as a fact of life is equally important."

With this as a background, the League addressed Mr. McNamara's questions:

FCC: Is there a channel plan for the analog emission segment of each Amateur service HF band?

ARRL: There is no channel plan; nor should there be, except in the very limited case where the operation of unattended stations may be authorized by an administration for good cause shown. The degree to which Amateur stations can share the same or adjacent frequencies is dynamic: often, interference can be reduced to an acceptable level by making a slight adjustment in operating frequency. This would not be possible in a channelized scheme.

FCC: What portion of the analog segment of each Amateur band is being used by FCC licensed Amateurs for domestic and international third party telephony communications? What is the general nature of these communications? How many phone patches are transmitted per day by band? What effect does the transmissions of such communications have on the Amateur Service? Why aren't other communication services being used for such communications?

ARRL: In general, domestic third party telephony communications are a relatively small part of the communications

being conducted at any given time. Their effect on other Amateur communications is minimal except in the very limited instances where disputes arise as to the "right" of one station or group of stations to use a particular frequency. The League regrets that these disputes arise since no Amateur has a mutually exclusive right to operate on a particular frequency. Such disputes could often be avoided if the operators involved were more flexible in their choice of operating frequency.

There is a greater temptation to use Amateur Radio inappropriately for international than for domestic third party communications, but abuses can be addressed adequately through enforcement of existing regulations.

FCC: What portion of the analog segment of each Amateur band is being used by FCC licensed Amateurs for information bulletin telephony communications? How many Amateurs listen to these transmissions? How many bulletins are transmitted per day? What effect do these transmissions have on the Amateur service? Why aren't Amateur digital systems used exclusively for such communications?

ARRL: Station W1AW has transmitted brief information bulletins using telephony emissions for decades. It has been common practice for other Amateur stations to conduct similar operations, usually on a localized basis, and usually as a part of a scheduled net or on some other limited, scheduled basis. Such bulletins are very important to the dissemination of timely and accurate information to radio Amateurs. In recent years there has been a trend toward Amateurs receiving these bulletins via digital modes: however, not all Amateurs have access to digital modes, and the telephony bulletins still serve a useful purpose.

FCC: What portion of the analog segment of each Amateur band is being used by FCC licensed Amateurs for telegraphy practice? In view of the availability of recorded telegraphy training material, why are Amateur service frequencies still used for this purpose?

ARRL Report - Continued

ARRL: W1AW transmits Morse code practice in four one-hour segments on weekdays, and three one-hour segments on weekends. While higher speeds are used in Code Proficiency Qualifying Runs, the W1AW transmissions concentrate on the speeds that are required to pass the examination elements for FCC Amateur licenses. This service is highly valued, and well accepted in the Amateur Radio community.

Audio cassette tapes and computer programs are useful tools but audio tapes can be memorized after they are used a few times, giving the user a false sense of accomplishment; computer programs require expensive equipment. Neither method provides experience in copying Morse code under actual on-the-air operating conditions.

FCC: Suggest a statement of practices that you believe should be followed by Amateur stations transmitting third party communications, information bulletins, and telegraphy practice.

ARRL: At the urging of FCC staff, the League in the mid-1970's developed the eleven-point "Phone Patch and Autopatch Guidelines" that appears in The FCC Rule Book (Eighth Edition) at page 13-15. These guidelines have stood the test of time, and are generally accepted as a useful supplement to the Commission's Rules.

The League believes that the definition of the term "information bulletin" contained in the Commission's Rules should be strictly applied and enforced. Operators of Amateur stations who cannot or do not wish to conform to these strict limitations may more appropriately seek licenses in the Broadcasting Service.

Finally, with regard to telegraphy practice, the only guidelines needed are to ensure that the purpose of the transmissions is to provide telegraphy practice and not to engage in one-way transmissions that otherwise would be illegal:

*The text should not be randomly generated, since such practice material is readily available via other media.

*The text should be taken from a published, readily available source to

facilitate checking accuracy of copy.

*The text should relate in some way to Amateur Radio.

*The text should not be sent repeatedly.

Based on the response from ARRL and others, the FCC will consider its next steps in this on-going HF "dispute." Mr McNamara says that possible alternatives range from FCC rule making that would ban all third party traffic on Amateur frequencies to rules that would designate certain frequencies where only third party communications could be conducted.

SIX METERS IS HOT!

November was the most exciting month in many years for 6-meter operators. From the East Coast, the band was open to Europe and Africa most mornings, and West Coast ops regularly worked into Japan and the Pacific. Stations in the Midwest have been able to work into Japan and Europe on many days as well. In addition, there have been spectacular transcontinental openings most afternoons.. Signal strengths are generally good -- often S9 or above for better-equipped stations--so anyone with a 3- or 10- watt radio and dipole can join in the fun.

Six meters really heated up on Sunday, November 26: A few West Coast stations reported working into Europe, and Japanese stations were worked as far east as northern New England. Operators in the Midwest report that the band was packed with JA stations up to 50.400 MHz for hours.

Conditions should be good at least through December and perhaps into January. If you've ever thought about getting on 6 meters, now's the time!

LEAGUE MEMBERS ELECT NEW REPRESENTATIVES. Counting the votes for ARRL Division Directors and Vice Directors took place at HQ on November 20, 1989. In the Atlantic Division, Hugh Turnbull, W3ABC, was reelected as Director. Kay C. Craigie, KC3LM, was elected Vice Director.

ARRL Report - Continued

Newly elected representatives and those who were unopposed will take office on January 1 for two-year terms.

US WARC-92 PREPARATIONS UNDERWAY. The National Telecommunications and Information Administration (NTIA) has assigned to its Ad Hoc Committee 206 the task of beginning its preparations for WARC-92 in Seville, Spain.

The FCC has also started work on WARC-92. Five staff groups have been designated to begin planning. Charles Breig, of the FCC Mass Media Bureau, leads the study of HF matters; Tom Tycz, of FCC Common Carrier, the work on 500 MHz to 3 GHz; and Ed Jacobs, of FCC Private Radio Bureau, the frequencies above 12.7 GHz. Frank Williams, Office of Engineering and Technology, heads the group studying procedural matters. Bob McIntyre, Private Radio, heads the technical group.

The agenda for WARC-92 is not likely to be known until after the next regular meeting of the ITU Administrative Council in June, 1990. The means for public input to the WARC preparatory process has not yet been announced.

1989 BOY SCOUT JAMBOREE A SUCCESS. Ray Moyer, WD8JKV< Jamboree Coordinator of the National Office of the Boy Scouts of America, recently sent the following letter to ARRL and to others who had supported the Amateur Radio display at the National Scout Jamboree, held August 2-8, 1989, at Fort A.P. Hill, Virginia:

"On behalf of the K2BSA radio staff and the Boy Scouts of America, I would like to thank you for the use of your equipment at the 1989 National Boy Scout Jamboree.

"... K2BSA was located in a 20 by 40 foot tent in a dusty, hot area... We were able to work 157 countries, our new record, and all 50 states. Over 5000 contacts were logged and several thousand messages were sent via all Amateur modes. We had countless messages coming into the Jamboree site also.

"One of the most exciting things at the Jamboree was that Amateur Radio was demonstrated to thousands of youth and adult scouts... I know of very few events where over 30,000 non-Amateurs could have the opportunity to enjoy that type of equipment. Our staff worked very hard demonstrating Amateur Radio to our visitors. We had a continuous stream of visitors from sun up until late evening. Once the Jamboree was asleep the staff continued to operate.

"... This is to say thank you for your trust and belief in what we did at the Jamboree. I can say now that our goals and hopes did come true."

MICROSAT LAUNCH DATE ADVANCES. Arianespace officials have informed AMSAT-NA and the University of Surrey that the launch date of the MICROSATs and the UOSAT D/E satellites has been advanced. The launch date is now planned for January 9, 1990. This change in the launch date is the direct result of the postponement of a previous mission. Launch preparations will begin on November 27, when the payload integration teams from AMSAT and University of Surrey, along with their satellites, arrive in Kourou, French Guyana. All of the payloads should be fully integrated aboard the ARIANE IV rocket by December 23.

OSCAR satellite users should monitor the AMSAT HF/VHF Nets. OSCAR-13 operations Nets, and watch the AMSAT News Service (ANS) bulletins for any further details concerning the launch of the MICROSATs and UOSAT D & E.

RADIO AMATEUR CALLBOOK SOLD TO BPI COMMUNICATIONS, INC.

The Radio Amateur Callbook, Inc. has announced the completion of the sale of all its outstanding shares to BPI Communications, Inc.

The Radio Amateur Callbook, Inc. has published The Callbook since 1920. It is the oldest commercial firm serving the Amateur Radio community.



PUBLIC SERVICE REPORT

Hank Black - N3ESR

Material for the PUBLIC SERVICE REPORT can be left on the N4QQ PBBS (145.03,05 or via DCA3) addressed to N3ESR, called over the telephone by modem on arrangement or mailed to Public Service Report, 105 North Van Buren St., Rockville, Maryland 20850-1860. Deadline for receipt of material is the fifth of the month.

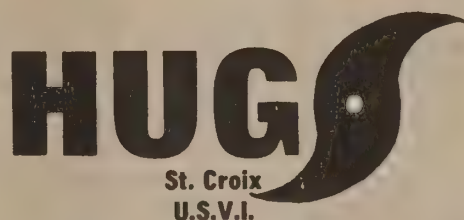
... AND HUGO WAS HIS NAME — DESTRUCTION WAS HIS GAME ...

Lined up like ducks in a row, the Caribbean, Puerto Rico, South Carolina, North Carolina, and Virginia, they fell prey to Death and Destruction. Hugo was the nom de plume. The event was the storm of this century for the United States. A hurricane which was merely a number in the beginning, Tropical Depression 11.

A storm that began churning away somewhere in the Atlantic between South America and Africa. Television gave coverage in the early stages as it approached and then ravaged several Caribbean islands. The public took notice.

So did ARRL Headquarters. Before Hugo hit, the League contacted served agencies reminding them of Amateur Radio's availability. The International Assistance and Traffic Net (14.303 MHz) was in operation on September 16th and soon the net was dealing with official traffic, damage reports, and traffic coming out of the affected areas. Disaster welfare inquiries were sent elsewhere.

That "somewhere," "elsewhere," is ill-defined in many people's minds. Before one finds the location of elsewhere, recall some basic principles regarding disaster communications. Firstly, listen to the frequency(ies), get an understanding of what is being said at the scene of the disaster. Secondly, do not transmit or



KG5OH / KP2

Sept. 20-28, 1989

Portable: Beeston Hill, Christiansted

Confirming with

W4HYB

Thanks for your help and support!

Randy Young, 3379 Butterleigh, San Antonio, TX 78247
Yesu FT747GX & FC 700, Cushcraft R5, Dayton generator

call stations in the affected area unless they are requesting assistance which you can provide or direct someone to them who can. Call only if called upon!

As time goes on, communications in a disaster area turn from emergency and priority requests for specific types of help to outgoing disaster assessment reports to relief agencies and government officials. Note carefully, that outgoing disaster welfare messages have not yet been given any attention and yet those of us outside the affected area are ready with ingoing disaster welfare inquiries (DWI).

Amateur Radio shines so bright in the public's mind recalling the "miracles" in communications that hams have accomplished in previous disasters such

Public Service Report - Continued

as the Mexican and Armenian earthquakes, and the mud slides from volcanic eruptions in South America. This creates a dilemma for the radio operator. Should one take DWT's knowing such cannot be sent into the disaster area, also knowing that in due course, messages from people in the affected areas will be able to get out sooner (in all probability) than those messages targeted inbound.

Even after an Amateur operator explains to the requestor the unlikelihood of being able to send a

message into the disaster area, something has to be done! One has difficulty in refusing to take DWT requests especially with Amateur Radio's reputation at stake!

My best advice is to refer all DWT's to the American Red Cross. Check with your local chapter on procedures. Is this the "elsewhere" mentioned earlier? Yes and no! Hopefully, some of you will offer some comments and suggestions about this problem. Until my next editorial,

73 de N3ESR.

NTS RESPONDS to ANERCOM

Last January, the League's Board of Directors asked National Traffic System Officials to provide input to the ARRL National Emergency Response Committee (ANERCOM) on several study items:

1) Incorporating digital-mode gateways as an integral part of the NTS on a daily basis; 2) An assessment of the present ability of NTS to relay a large volume of messages within 48 hours of an extensive communications emergency; 3) A five year projection of NTS manpower which will be available to handle a large volume of messages via NTS.

Working with their respective staffs, the three Area Staff Chairmen coordinated responses and filed a joint white paper with ANERCOM Chairman Joel Kandel, KI4T, just prior to the deadline of October 1. Here's the NTS report:

(1) Digital Gateways as an integral part of the NTS

The three NTS Area Staffs have individually deliberated on the terminology and definitions stated in the past Blue Ribbon Committee as referenced and interpreted by ANERCOM. Indeed much discussion about the definition of the term "digital gateway" and related features has taken place by not only NTS officials, but by other ARRL committee groups and individuals. The NTS officials wish to advise ANERCOM that digital mode gateway

station operations are being utilized in the National Traffic System, and indeed the expansion of these methods has continued since the early to mid-eighties.

These operations presently involve HF AMTOR mailboxes utilizing software written specifically for the automated handling of standard format message traffic, in addition to the use (with limited, related features incorporated) of the UHF/VHF/HF packet radio networks. The recently applied APLINK (AMTOR-packet linked) software allows the integration of both techniques, and is enjoying and ever-increasing utilization amongst traffic handlers nationwide. Additionally, a number of TCC operators have been conducting their station-to-station schedules, successfully using RTTY and AMTOR.

Regarding the use of packet radio mailboxes (PBBSs) for message traffic handling, based on experience gained during a currently in-process, three year trial period begun by NTS officials in 1986, there are strong sentiments with varying degrees of agreement that the PBBSs are presently demonstrating a variety of problems and shortcomings which as an end result provide unreliable message relay and delivery insofar as the timely handling of third party message traffic is concerned.

Public Service Report - Continued

While several regional pockets of activity, more closely managed by NTS leadership, have demonstrated an ability to more reliably handle traffic, the sheer number of newly arrived or closing PBBSs have made sustained reliable operations difficult to maintain. It is hoped that technical developments in packet radio linking operations will overcome many of these problems. The man-machine interface will need more management and guidance by the ARRL Field Organization to achieve more reliable operations leading timely message deliveries.

The overall thrust, then, of the NTS response to ANERCOM's first question is: digital modes/pathways/gateways are being utilized by the NTS with the expectation that such use will continue to expand and grow, and the problem areas will continue to be dealt with and overcome through League-sponsored efforts and through the ARRL Field Organization's Leadership Officials, with the full intent of effecting a more proper and reliable flow of message traffic throughout the National Traffic System and its affiliate operations.

(2) Present NTS Ability To Handle A Large Volume Of Messages Within 48 Hours of An Extensive Communications Emergency.

The NTS Area Staffs examined many facets of the capabilities of the nationwide traffic handling community in addressing this question. The NTS four cycle (TCC-Area-Region-Section-Local) operational scenario was considered as well as the presently available nearly-continuous capabilities of the AMTOR and packet radio modes.

The considerations included both the more traditional CW/Voice (both AM and FM) traffic nets/skeds on single frequencies and on repeaters, and the frequency-hopping methods of the several digital modes.

The NTS response to ANERCOM's second question, therefore, is: Today, the capability of AMTOR is conservatively estimated to be in excess of 1700 messages per day, while the capability of the more traditional CW/voice modes is in excess of 900 messages per day, for a total of over 2600 individual messages per day. Note: These estimates do not include the use of orbiting Amateur Radio Service satellites, nor UHF/VHF/-HF packet operations.

(3) Five Year Projection of NTS Manpower.

While the NTS officials recognize that one trained message handler is worth a fistful of untrained operators, they also believe that, similar to the entire Amateur Radio Service itself, the number of capable traffic-handling operators has been relatively stable with respect to the more traditional operating modes.

However, with the advent of more automated message handling features, and while heavily presupposing a sustained in-rush digitally-oriented operators interested in providing public service through traffic handling by digital means, and while there are presently certain problems with providing training of these operators on their proper functioning within the NTS operations, e.g. operations with automatic features tend to preclude the often-necessary peer pressure to "do things the right way" which readily exist on the more visible real-time CW/Voice nets, the NTS Area Staffs believe that an appropriate estimate would be that: Within five years, the number of traffic handlers operating with the National Traffic System may increase by a factor of two.

Thus the present estimate of more than 1500 may increase to upwards of 3000 active NTS operators.

Public Service Report - Continued

Conclusion:

The NTS officials pass their sincere thanks to ANERCOM for expressing the ANERCOM belief that the ARRL National Traffic System is - and must remain - a vital component of the overall

emergency communications system. - EAS Chairman Bill Thompson, W2MTA, CAS Chairman Jim Leist, KB5W, PAS Chairman Bill Smith, W7GHT. [From ARRL Section Leader, Vol. 5, No. 7, "11/89.]

REMINDER ON WINTER STORMS

Are you prepared for a major outage due to severe weather? Check with your local ARRL Emergency Coordinator, RACES Radio Officer and/or office of civil defense or emergency management for information and help.

Are you able to operate your Amateur Radio station in cold weather for extended periods of time without availability of commercial power? Can you respond as a communicator with radio equipment to a facility, institution

or location that is without power, writing materials, comforts of home, water, food, and/or basic first aid items?

Are you prepared? That is the question and reminder. Do it now! Get ready because it is coming. Hey, if I knew when, I could get rich on my forecasting skills. But, I am no better than the weather service. Just think, some companies actually get paid to forecast winter storms with about the same accuracy as the National Weather Service. So be prepared!

NET SCHEDULES FOR AUTO CALL ARE NEEDED

Please send your Net Schedule information to the Public Service Column editor as soon as possible. Call (301) 340-8595 and leave a message or send it via packet to N3ESR @ N4QQ or @ WA3ZNW. All messages (voice and packet) will be verified and acknowledged.



FCC WORD TO THE WISE

The Baltimore office of the FCC has published a notice regarding conviction of a Manassas, Virginia, radio store owner for selling a CB linear amplifier and providing advertising offering an illegal CB transceiver. A search of the facility, in October 1988, resulted in the seizure of 55 illegal amplifiers and CB transceivers. Jury trial resulted in conviction on two counts and sentencing is scheduled to take place on January 16, 1990.

The FCC News Release reiterates that "the selling, advertising or offering for sale of any radio equipment which is not approved by the FCC is illegal and is punishable under federal law." It also notes that such offenses are "punishable by a fine not to exceed \$100,000 and/or imprisonment not to exceed one year for each count."

National Capital Area Amateur Radio Emergency Service Emergency Coordinators

VIRGINIA

Va. Section EC: Steven P. Czaikowski, WB4ZTR (703) 869-3674
National Capital District DEC: Harry Jones, N4CWP (703) 521-4624
Military District of Washington EC: Frank Hartnett, KA8PUU (703)642-5516
Fairfax Co. EC: Bob Lewis, N4SCK (703) 830-3495
Vienna Asst. EC: VACANT
Mt. Vernon Asst. EC: Steve Schneider, WB4EEA (703)683-6570
Alexandria EC: Chuck Rexroad, N4HCP (703) 931-2917
Arlington Co. EC: Craig Church, N4EFJ (703)979-8325
Prince William Co. EC: Harry Vorhauer, W4PVA (703)368-6050
Loudoun Co. EC: Bill Roemer, K3CUU (703)395-4905
Virginia District #1 DEC: Walt Quitter, NC4B (703)869-5241
Frederick Co. EC: Ed Helvey, WA2FMT (703) 877-2486
Warren Co. EC: Tom Strickler, K4JNA (703)635-3035

.....

MARYLAND

Maryland-DC SEC: Al Taylor, KN3U (301) 327-1819
Maryland-DC ASEC: Ross Merlin, WA2WDT (301)983-2842
Nat'l Capital District DEC: Gary Mentro, WB3JRW (301) 927-4094
Md. State RACES Coordinator: Al Nollmeyer, W3YVQ (301)252-9073
Md. State RACES Coordinator: John Rupperecht, K3NOQ
Dist. of Columbia EC: Ken Williams, N3AQG (202) 363-8364
Allegany County EC: Gay Rembold, W3DFW (301)724-0674
Anne Arundel Co. EC: Nancy Alley, NT3Z (301) 766-0129
Baltimore City/Co. EC: Cam Whetstone, WA3YOH (301)486-2609
Calvert Co. EC: Woody Schwartz, W3ZNW (301)535-1281
Caroline Co. EC: VACANT
Carroll Co. EC: John Culleton, KO3Z (301)795-1159
Cecil Co. EC: Bill Doss, N3AJJ (301)287-5897
Charles Co. EC: VACANT
Dorchester Co. EC: VACANT
Frederick Co. EC: Rick Ogden, N3RO (301)845-2670
Garrett Co. EC: VACANT
Harford Co. EC: VACANT
Howard Co. EC: Mike Carr, WA1QAA (301)799-0403
Kent Co. EC: Jim Bortner, WA3UJE (301)778-0589
Montgomery Co. EC: Hank Black, N3ESR (301)340-8595
Prince Georges Co. EC: George Dewees, KA3KIF (301)292-1241
Queen Anne Co. EC: Walter Brink, W3WPY (301)643-2933
Somerset Co. EC: VACANT
St. Mary's Co. EC: Al Barolet, KJ3E
Talbot Co. EC: VACANT
Washington Co. EC: Charlie Anderson NF3X (301)733-3061
Wicomico Co. EC: VACANT
Worcester Co. EC: Leo Kilgore KX3J (301)641-4291

National Capital Area Emergency and Traffic Nets:

Daily:

1300 Virginia Traffic Net: 7.26 SSB
1800 Maryland Emergency Phone Net: 3.920 SSB
1800 Virginia Sideband Net: 3.947 SSB
1830 Virginia Slow Net: 3.68 CW
1900 Virginia Net (early): 3.68 CW
1900 MD-DC Net: 3.643 CW
1915 Shenandoah Valley Emergency Net: 146.22/.82 FM
2100 Vienna Wireless Society Pow-Wow Net: 28.4 SSB
1930 MD Slow Net: 3.717 CW
2200 MD-DC Net: 3.643 CW
2200 Virginia Net (late): 3.68 CW
2215 Virginia Late Net: 3.947 SSB

Weekends & Holidays:

4/1-11/15 1100/1500: Chesapeake Bay Weather & Traffic Net: 147.705/.105 FM

Sundays:

0900 Sunday Morning Coffee Net: 50.4 AM
1900 Maryland 6 Meter Free State SSB Net: 50.125
1900 Washington Co. 2-Meter Net: 146.94/.34 FM
2100 Md-DC-NVa Regional EC Net: 146.91/.31 FM

Mondays:

2000 Woodbridge Wireless Net: 147.84/.24 FM
2030 Maryland Mobileers Net: 146.805/205

Tuesdays:

1930 Arlington ARES Net: 146.58 FM
2000 Mt. Vernon ARES Net: 146.055/.655
2000 Montgomery Co. RACES/ARES Net: 146.46 FM

Wednesdays:

2145 (Third Weds. of each month) VA Section ARES Appointees Net: 3947 KHz LSB

Thursdays:

1900 Four State Net: 147.09/.69 FM
1930 Vienna Wireless Society Emergency Net: 146.085/.685 FM
1930 Carroll Co. Novice Net: 28.450 SSB
2000 Alexandria Radio Club Net: 147.915/.315 FM
2000 Ole Virginia Hams Net: 146.37/.97 FM
2100 Prince Georges Amateur Radio Emergency Service Net: 147.75/.15 FM
2100 Vienna Wireless Society Traffic Net: 28.010 CW

Saturdays:

1900 MCNRC Net: 52.25/53.25 and 144.95 FM

Emergency only - as required:

Vienna Emergency Net A (VEN/A): 3910 KHz (7260 altern) SSB
VEN/B: 3947 KHz (7240 altern) SSB
VEN/E: 3680 KHz (7050 altern) CW

Note: All times are local (EST/EDT) unless otherwise specified.

FOUNDATION FOR AMATEUR RADIO

Volunteer Examiner Cooperative

Nancy Draheim - NK4U
3513 Old Post Road, Fairfax, VA 22030
(703) 691-0078

SCHEDULE OF EXAMINATIONS 1989

IMPORTANT NOTE: If you now have a Technician class license which was acquired prior to March 21, 1987, have a copy of it available when you decide to upgrade.

1990

- Jan. 6 GWU/Department of State ARC (Washington, DC) (ARRL VEC) Walk-in
Contact: Derrill Rohlfs, W3WOX (301) 423-0179
- University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
- John Tyler Community College (Richmond, VA) (W5YI VEC) Walk-in
Contact: Albert Bailey, N4RPI (804) 233-6461 or
Phil Giella, KC4DSF (804) 561-3020
- Chesapeake DX Assn. (Chesapeake, VA) (W5YI VEC)
Contact: Bill Verebely, KC4YX (804) 424-4764
- Jan. 20 Maryland Mobileers ARC (Annapolis, MD) (LARC VEC)
Contact: Nancy or Dean Alley, NT3Z/NS3V (301) 761-7115
- PROS (Salisbury, MD) (Laurel VEC) Walk-in
Contact: John Rupprecht, K3NOQ (301) 749-7444
- Jan. 26 Pentagon ARC (Stafford, VA) (W5WI VEC) Walk-in
Contact: Dave Boyd, K9MX (703) 659-6241
- Jan. 28 Antietam Radio Assn Amateur Club (Hagerstown, MD) (ARRL VEC)
Contact: Ken Picone, KC3TT (301) 824-3519
- Feb. 3 University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
- John Tyler Community College (Richmond, VA) (W5YI VEC) Walk-in
Contact: Albert Bailey, N4RPI (804) 233-6461 or
Phil Giella, KC4DSF (804) 561-3020
- Hampton Roads Radio Assn. (Hampton, VA) (W5YI VEC)
Contact: Bill Runyon, N4BDH (804) 487-8611

Volunteer Examiner Cooperative - Continued

- Feb. 24 Vienna Wireless Society (Vienna, VA) (ARRL VEC) Walk-in
The day before WINTERFEST
Contact Nancy Draheim, NK4U (703) 691-0078
Volunteer Examiner Cooperative - Continued
- Mar. 3 University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
- John Tyler Community College (Richmond, VA) (W5YI VEC) Walk-in
Contact: Albert Bailey, N4RPI (804) 233-6461 or
Phil Giella, KC4DSF (804) 561-3020
- South Peninsula ARC (ARRL VEC)
Contact: Ed Brummer, W4RTZ (804) 898-8031
- Mar. 30 Pentagon ARC (Stafford, VA) (W5YI VEC) Walk-in
Contact: Dave Boyd, K9MX (703) 659-6241
- Apr. 7 University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
- John Tyler Community College (Richmond, VA) (W5YI VEC) Walk-in
Contact: Albert Bailey, N4RPI (804) 233-6461 or
Phil Giella, KC4DSF (804) 561-3020
- Williamsburg Area ARC (Williamsburg, VA) (ARRL VEC)
Contact: Andrew Swanson, WJ4X (804) 253-2811

While most examinations are offered on a walk-in basis,
pre-registration is desirable in all cases.

Certificates of successful completion for theory tests
are not always accepted. Check with the contact person
for the examination you wish to take.

If you are upgrading from Technician class license acquired prior to March 21, 1987
a copy of your license may be required as proof that you are grandfathered
for Element 3B (General theory)

NOTE: All examinations require that you submit:
Copy of your current Amateur Radio license (bring original)
Completed FCC Form 610.

Check for appropriate examination fee.*

Maximum fee has been raised to \$4.95.

Fees of individual VEC may vary.

ARRL Exam fee is \$4.95

W5YI Exam fee is \$4.95

Laurel Exams are still free.

Mountain VEC Novice Exams free

All other Mountain VEC Exams \$2.00

This schedule of examinations appears each month in Auto-Call Magazine
Sponsored by the Foundation for Amateur Radio
Please advise NK4U of your examination schedules.

Training Classes

Robert Armstrong, WA4SQL

44 South French Street, Alexandria, VA 22304

(703) 751-2294

Technician/General Classes starting January 15, Temple Hills, MD. Sponsored by Southern Maryland ARC. Upgrade classes will be held Monday evenings at 7:30 p.m. at the Church of the Nativity, Manchester Drive, off Rt 5 South of Beltway. Classes are expected to last about 10 week. Instructor will be Mike - KO7V. For further information contact Vic Curtis - WA3YUV at (301) 888-1388.

Novice Classes, starting January 18, Culpeper, VA. Sponsored by the Culpeper Amateur Radio Assn. and the Piedmont Technical Education Center. Classes will be held on Thursday evenings from 6:30 to 9:00 p.m. and will run for about 10 weeks. There is no charge for the course, however students will be expected to provide materials costing about \$20. For further information and registration, call the Piedmont Technical Education Center at (301) 825-0476. Leonard Cowherd - N4AQC, Night School Director.

General and Advanced Classes starting January 29, Alexandria, VA. The Mount Vernon Amateur Radio Club and the Alexandria Radio Club are sponsoring a General/Advanced class Amateur Radio license course starting on 29 January. The course will be on Monday nights from 7:30 - 9:30 p.m. and will run for about 12 weeks. Location will be in the city of Alexandria. There is no charge for the course; however, students will be expected to provide materials costing about \$25. Although we are not directing this class to the Technician class license, Novices wishing to upgrade are welcome. For location and details, contact: John Forrest, WZ4A at (703) 971-3905 or Harry Jones - N4CWP at (703) 204-1781.

Technician/General Classes, starting late in January, Laurel, MD. Sponsored by Laurel ARC. Classes will be held on Monday evenings. Twenty five students completed the fall Novice Classes, taught by N3CKD and KD3S, and they are now planning to upgrade. For more information and registration, call Frank - K3LDE at (301) 498-2213 or John - W3GFS at 490-5286.

GENERAL INFORMATION

Alexandria Radio Club	Contact Harry Jones - N4CWP (703) 521-4624
Anne Arundel	Contact Tony Young - WA3YLO (301) 262-1917
Antietam Radio Assn.	Contact Ken Picone - KC3TT (301) 824-3519 after 5:00 p.m.
Baltimore ARC	Contact Ralph Huber - KA3HAM (301) 321-5748
Baltimore Radio Amateurs	TV Society (BRATS) - Contact Bill Self (301) 669-0149
Chaverim, Inc.	Contact Bob Teitel - W3IDT (301) 654-3484
Frederick ARC	Contact Steve Bauman - W3FOA (301) 662-4552
Laurel ARC	Contact Frank Treadwell - K3LDE (301) 498-2213
MADRAS	Contact Larry Ziecheck - N3GKS (301) 530-8646
Montgomery County Department of Recreation	Phone (301) 468-4050
Mount Vernon ARC	Contact John Forrest - WZ4A (703) 971-3905
NASA/Goddard ARC	Contact Vikki Gigante - KA3PVS (301) 249-2609
Pentagon ARC	Contact David Boyd - K9MX (202) 697-0630
Rock Creek ARA	Contact Walt Ramsey - AK3B (301) 949-3954
Shenandoah Valley ARC	Contact Walt Quitter - NC4B (703) 869-5241
Southern Maryland ARC	Contact Vic Curtis - WA3YUV (301) 888-1388
Sterling Park	Contact Art Nevins - WA4NTP (703) 437-9382
Tri County ARC	Contact Al Sines - WA3QGA, Box 710, College Park 20740
Vienna Wireless	Contact Paul Wilkins - AB4CY (703) 560-2779
Washington Adventists	Contact Henry Miller - W3BWN (301) 474-7376
Woodbridge Wireless	Ed Bayne - N4LJZ (703) 494-3508

ARRL Leadership

Maryland/DC ARRL Officers and Section Appointments

Atlantic Division Director:	Hugh Turnbull, W3ABC
Vice Director:	Kay Craigie, KC3LM
Maryland/DC Section Manager:	Kenneth Cohen, NI3F
Assistant Section Manager:	Tony Young, WA3YLO
Ass't Section Mgr. - Packet:	Al Barolet, KJ3E
Section Emergency Coordinator:	Al Taylor, KN3U
District Emergency Coordinator:	Gary Mentro, WB3JRW
Section Traffic Manager:	Bruce Fleming, N3EGF
Affiliated Club Coordinator:	Tony Young, WA3YLO
Official Observer Coordinator:	Richard Lovegrove, WB3EFG
Technical Coordinator:	Ken Stuart, W3VVN
State Government Liaison:	John Buchanan, KW3X
Public Information Officer:	Maragert (Holly) Bevan, N3BMB
Bulletin Manager:	Jim Reske, NB3P

Virginia ARRL Officers and Section Appointments

Roanoke Division Director:	John Kanode, N4MM
Roanoke Div. Vice Director:	James Walker, WD4HLZ
Virginia Section Manager:	Claud Feigley, W3ATQ
Section Emergency Coordinator:	Steve Czaikowski, WB4ZTR
Section Traffic Manager:	Geri Sweeney, N4GHI
Affiliated Club Coordinator:	R. Kinsley, NT4S
Official Observer Coordinator:	John Swafford, W4HU
Technical Coordinator:	D. Landes, WX4C
State Government Liaison:	Frank Brooks, W4UMC
Public Information Officer:	D. Nordon, AA4VP
Bulletin Manager:	R. Cook, Jr, AB4U
Official Emergency Station:	John Mathias, WA5FAC
Advisory Committees:	
Contest Advisory Committee	Dave Siddall, K3ZJ
DX "	Gay Milius, W4UG
Public Service "	Charles Moeller, N4FVU
VHF Repeater "	A Carter Kogle, K4ARO
VHF/UHF "	Sherman Starnes, W4TZU

SRAM - 013

(Soviet Radio Amateur Movement)

Dexter Anderson, W4KM

[Rough, summary translations from Soviet Amateur Press]
[Comments by translator are within square brackets]

[from August 1989 issue of RADIO magazine]

"IS IT EASY TO BE A CONSTRUCTOR?"
by Arnol'd Yakovlevich Grif

[Introductory remarks by translator]

[In many countries it would seem natural, upon meeting someone identified as a radio Amateur, to ask for his or her callsign. In the USSR, however, only a small proportion of people called "radio amateurs" (radiolyubiteli; literally, as in English, "radio-lovers") have permission to transmit over the air, and perhaps only half of these have personal callsigns.]

[Some 50,000 individuals have personal callsigns in the USSR, and perhaps 50,000 others have permission to transmit from collectivestations; the latter figure is based solely on my own arbitrary assumption that there may be an average of ten operators with permission to transmit for each of the 5,000 or so collectivestations in the USSR. Let us assume, for present purposes, that there are 100,000 "transmitting" radio amateurs in the country.]

[Against these figures, there may be as many as 2,000,000 or 2,500,000 "radio-amateur-constructors" not having callsigns or permission to transmit. Some make radio equipment and the rest make non-radio electronic equipment, but both groups are called "radioamateur-constructors" (or just "constructors" for short) and are considered radio-amateurs. Based on these figures, there are roughly twenty "radioamateur-constructors" for every "transmitting" radio amateur, and forty for every amateur with an individual callsign.]

[Article proper]

Frank discussions at the 34th All-Union Exhibition of DOSAAF Radioamateur-Constructors [formerly called the All-Union Radio Exhibition and still called by the latter title for short; this may indicate a "tilt" toward radioconstruction, and away from other aspects of amateur radio, at this exhibition] revealed difficulties faced by those engaged in radioconstruction.

Vladimir Vital'yevich Inozemtsev from Donetsk, a prize-winner in the new "Computer Equipment" category, works practically in isolation, independently mastering new equipment and programming. He stated without hesitation that he could get complete sets of parts only on the "black market."

Over and over the word "parts" came up in conversation. The only people who don't talk about parts are those who can "acquire" them at their workplace. Shrewd dealers and speculators operating on the black market have become the principal suppliers of individual constructors.

(Continued)

SRAM - Continued

Talented Latvian constructor Valdemars Ketners exhibited a direct television receiving system, generally considered the best exhibit. Despite promises of "mountains of gold" at the last exhibition, Ketners still works in isolation, bearing all expenses for lathe work ("for a bottle") and for acquiring parts (main supplier -- the "black market") himself. A TV set in his exhibit was tuned to a West German program. A sign read "Reception of the ECS satellite, 013° East longitude."

Some exhibitors would not make public details of their exhibits out of fear that cooperatives [the controversial new organizations authorized under "perestroyka"] would make unauthorized use thereof without permission.

"THE SHORTWAVER AND THE LAW"

[Introductory remarks by translator]

[This article is of particular interest in relation to the case of Leonid Mikhaylovich Labutin, who was deprived of his callsign UA3CR by the Federation of Radio Sport of the USSR for allegedly diverting equipment that had been sent from the USA for use in the Armenian earthquake disaster, to pursue his interest in packet radio. Stepanov seems to be pleading for applying the "rule of law" in the authorities' treatment of radio Amateurs.]

[In this connection, there are three disturbing aspects to Labutin's treatment: (1) His side of the story has not been presented in RADIO magazine, which repeatedly and prominently publicized the charges against him; (2) even assuming for the sake of argument that the charges are well founded, the form of punishment seems inappropriate -- intriguingly similar to the example Stepanov cites in the article of punishing a race-car driver for a racetrack infraction by taking away his (private) driver's license; (3) it is unclear how the Federation of Radio Sport, rather than the Ministry of Communications, would have authority to take away a radio amateur's license.]

[Also of interest are the comments (see second paragraph of summary translation below) reflecting the suspicion that "transmitting" amateurs attract, on account of their virtually unique ability to communicate in "real time" across the borders of the USSR. The harsh denunciation toward the end of the paragraph of the arrogance and complacency of the "managers" of the Soviet Radio Amateur Movement is all the more striking, given Stepanov's own status as a prominent member of the Soviet amateur radio "establishment."]

[Stepanov seems to be calling for a liberalization of what Soviet amateurs may discuss over the air. Heretofore, they have been obliged not only to limit their conversation, in accordance with No. 2732 of the Radio Regulations, to (1) technical matters and to (2) "remarks of a personal nature for which, by reason of their unimportance, recourse to the public telecommunications service is not justified," but -- beyond what is required internationally -- to (3) matters relating to amateur radio and radiosport. Stepanov apparently wants restriction (3) dropped.]

[The article proper follows on next page]

SRAM - Continued

"THE SHORTWAVER AND THE LAW" by Boris Grigor'yevich Stepanov, UW3AX

More and more the legal protection of our country's citizens is discussed in our newspapers and magazines. The time has come to speak of the legal protection of shortwavers.

Traditionally, this has not been a simple matter. The shortwaver, having the possibility of direct contact with "them" on the other side of our state border, has evoked (and sometimes still evokes) a special attitude toward himself. This attitude, it must be assumed, produced a situation in which the shortwaver was without rights, even with respect to purely domestic matters, for example concerning contests. As is known, the apparat [the bureaucracy] and administration have the most rights. It is not at all simple to overcome their unshakable conviction that everything they do is done in the name of, and for the good of, the shortwavers. These ideas will be illustrated by three examples relating to the sport side of amateur radio, where passions can run high, and affecting a single station.

First Example. Lithuanian station UK2BBB was wrongly accused of not sending in its report on participation in the 1978 RAEM CONTEST, and was thereby liable to being closed down. No one checked with the station first before the official results of the contest. The Federation of Radio Sport should apologize publicly.

Second Example. In the 1976 women's 'phone championship, the women operating the station were accused of accepting help from men, based on a report from a monitoring station that men's voices were heard in the background. [This resulted from an error in transliteration, due to which UK2BBB was blamed for UK2WWW's transgression.] This incident resulted in the departure of several qualified women from amateur radio.

Third Example. In the CQ-M 1986 CONTEST, UP1BWW [the same station following the May 1984 callsign reform] was wrongly accused of operating with more than one transmitter in the single-transmitter event. Still again, no one checked with the station before the contest results were announced.

A radio amateur should receive, within a specified period of time, a construction permit for his amateur station, or a refusal and the reasons therefor -- counting, since clubs often contribute to delays, from the date he applied to his **club**, not the State Telecommunication Inspectorate [of the Ministry of Communication].

A legal study is needed on what it is permitted and what it is prohibited to say on the air. Only politics, sex, religion, and commerce are prohibited all over the world. Maybe a careful, unprejudiced examination of this matter will lead to a broadening of the rights of Soviet shortwavers in this area. The more so since the "Radio Regulations" (to speak of international law) clearly permit transmission, as amateur communications, of information of a personal character.

(Continued)

SRAM - Continued

[from September 1989 issue of RADIO magazine]

"RETURNING TO THE ARMENIAN TRAGEDY..."

by S. Chulakov, UB5LGJ, Khar'kov

In December 1988, as all shortwavers know, 14,175 kHz was recognized by agreement within the amateur fraternity as an emergency frequency. I had the impression that people were attracted to it like [bees to] honey. If they didn't plop down right on 14,175 kHz, they went 1 or 2 kHz higher or lower. Sometimes it seemed that such amateurs didn't know about the tragedy and didn't want to know. Only the powerful signal of K[onstantin] Khachaturov, UW3AA, saved the emergency frequency; they really got out of his way.

Let's assume that these "deaf people" didn't know what they were doing, though they should have. But how about those who deliberately did nasty things on that very frequency? Anyone who operated during these days remembers the "laugher" who sent, in c.w., every day and every evening (that's persistence for you!) "hi-hi," "bazar," "bezdel'niki" ["loafers"], etc. He used a phrase which I unfortunately don't remember word for word but something like "Zanimayetes' bespoleznym delom" ["What you're doing is useless"].

How useful our operation was might best be judged by the people we telephoned in various towns to read them the contents of radiograms from their relatives in Armenia. If that "Neanderthal man" could have heard the thanks from people who had had no information from their loved ones for a long time and now learned that they were alive, it would have gotten through even to him why we were keeping watch on the air.

The Armenian events show that a radio amateur net is necessary. Such a net permits one to communicate without difficulty with any location or even with a specific individual. I sometimes had occasion to use a double or even triple relay, and my radiograms always reached their addressee quickly.

So maybe it would make sense to organize "fast-reaction groups" attached to radio clubs. Equipment and supplies for them could be put in place and maintained. I think several experienced radio amateurs could be found in any oblast' willing and able to go to a disaster area to provide emergency communication.

[from SOVETSKIY PATRIOT newspaper of date shown]

[NLD = "On the Amateur Bands"]

[a weekly column edited by Boris Stepanov, UW3AX]

NLD-1403, 6 September 1989:

The State Telecommunication Inspectorate of the Ministry of Communication of the USSR has authorized use of the segment 3,650 -3,800 kHz during international 'phone contests during 1989.

UZ9OWM/UA0X [0X = Koryakskiy Autonomous Okrug (District) = "Oblast'" No. 129] will operate until 20 September 1989 from the island of Karaginskiy (FB for IOTA). QSL address (PSE SASE): P. O. Box 1, 630092 NOVOSIBIRSK. From UA9OBA.

The QSL address for R1ASP and EO1AAK (see NLD-1385) is as follows: P. O. Box 300, 189610 KRONSTADT. From UA1AMW.

(Continued)

SRAM - Continued

Sovetskiy Patriot, 20 September 1989, p 4, independent article:

"ON A PROHIBITED FREQUENCY"

by L. Mazyrin, Rostovskaya Oblast'

For some time a radio amateur with the intriguing callsign "Chervonets" appeared on the air. He invited conversation on 2182 kHz, which, under the international Radio Regulations, is to be used only for calling and for traffic in a distress situation, for emergency position-indicating radiobeacons, and for urgency communications.

The "Chervonets" callsign was repeatedly picked up by technical monitoring stations in Rostov[-on-the-Don?], Donetsk, Krasnodar, Odessa, Lipetsk, and other cities, and the operator had been warned by radio operators to cease operation on the international distress frequency. However, he didn't comply, apparently thinking he couldn't be found with an unregistered station.

And nonetheless the violator was soon located. It turned out to be I. Pyatnitskiy, a resident of Novoshakhtinsk. A criminal charge was brought against the young man. The court sentenced him to a year and a half deprivation of freedom in a strict-regime corrective-labor camp.

Yes, the "radio amateur" paid dearly, with his freedom, for hooliganism on the airwaves. This lesson is not just for him, but also for others who don't observe the requirements of radioamateur laws and senselessly try to use even the distress frequency 2182 kHz for communicating with others.

[This final section is intended for those who know Russian and want to subscribe to the source publications for the "SRAM" column. The material in the newspaper **SOVETSKIY PATRIOT** is easier from the language point of view, is far less voluminous, and is considerably more up to date than that appearing in **RADIO** magazine; in addition, the subscription cost for air-mail delivery of "**SP**" is much lower. For these reasons, consideration might be given to subscribing, initially at least, to "**SP**" only.]

SUBSCRIPTIONS TO SOVIET PERIODICALS -- RADIO AND SOVETSKIY PATRIOT -- CONTAINING NEWS ABOUT AMATEUR RADIO

Two Soviet periodicals carry news about amateur radio on a regular basis: **RADIO** -- a monthly magazine published jointly by the USSR Ministry of Communication and the military training organization DOSAAF -- and **SOVETSKIY PATRIOT (SP)**, a newspaper published on Wednesdays and Sundays by the DOSAAF Central Committee.

RADIO covers what is considered amateur radio in the West, as well as other electronics pursuits included in the far broader Soviet definition of amateur radio (radio-lyubitel'stvo). Most issues contain a two-page-long column entitled **CQ-U** ("Calling All Soviet Radio Amateurs") and consisting of regular sections on specific amateur radio topics (in the more restricted Western sense) such as VHF/UHF/SHF, QSL routings, and propagation. Publishing delays cause the contents of **RADIO** to be considerably out of date by the time the magazine reaches readers, even in the USSR.

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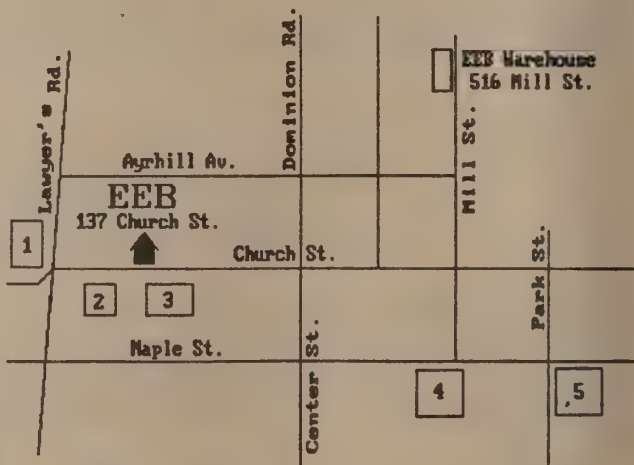
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Have Bug -- Will Travel

Howard Johnson - W4HIG

In August of 1980, as fortune would have it, I joined the SS PIONEER CRUSADER/WHAO in Gulfport Mississippi where she was loading sacked commercial fertilizer destined for Zaire. "WHAO" was an old-style break/bulk cargo vessel with a veritable forest of cargo booms, masts, wire-rope along with radio gear that was of the same general vintage. She would have been the pride of anyone's fleet in the 1930's, but decidedly a museum piece in this day of specialized container and bulk carriers. With the sole exception of a digital exciter, all of the MF/HF CW installation would have been state-of-the art in 1940... For openers, there was absolutely no air conditioning in the radio shack and temperature ran to over 100F on many occasions, with high humidity. Fortunately, I arrived approximately one week before departure and was kept busy getting the communications gear at least partially operational. A list of "must have before sailing" replacement and spare parts was submitted to the captain with a suggestion they be sent to our first bunkering port - said list was totally ignored...

After shifting to Pascagoula, Mississippi to complete loading, we departed for an unspecified South or East African port after bunkering at a likewise unspecified Caribbean or South American port. The 3CM radar failed first day out due to a defective Gunn Diode sealed-unit assembly, and when I paid off several weeks later, it was still out of service. In the roadstead of Port of Spain, Trinidad where we took bunkers, a service tech confirmed my findings and strongly recommended a replacement be sent to our next port, as none were available locally. This suggestion was ignored... Shortly after we left Trinidad and were commencing our "coasting run" along the shoulder of South America, one of the crew fell 40-some feet from the tip of a cargo boom where he had been "slushing

lines" (applying tallow and oil mixture to the wire-rope cargo handling lines). Luckily for him, his fall was broken (along with several ribs, an arm, and an ankle) by encountering various steel wires and miscellaneous obstructions on his descent to the deck. He also suffered obvious but unknown internal injuries. Fortunately, the mate who was designated "medico" had received hospital emergency room training and was conscientious and careful in his treatment; however, the severe shortage of supplies made it impossible for him to do much to relieve the man suffering. Due to an obvious head wound (and suspected concussion) it was just not possible to inject enough morphine ease his pain.

Our only HF voice capability was a ten channel 100W SSB transceiver with preset-channels, and no way to add/delete frequencies. Consequently, contact with the USCG and Public Health Service doctors was tenuous at best. Most of the communications load fell to me on what many called "obsolete radiotelegraph" and I remained in continuous QSO with Chatham radio/WCC and with the USCG station in Portsmouth, Virginia for the next 18-20 hours. It was soon determined the nearest port with adequate medical facilities was Cayenne, French Guiana. Unfortunately, there were no coastal or harbor approach charts aboard in sufficient detail for safe navigation inshore of the 100 fathom curve... Additionally, the sole remaining radar (the 10CM rig) had several known leaks in the waveguide, causing same to become partially filled with water whenever we encountered rain. Consequently, we could detect ships at 10-12 miles at best, and at essentially zero range in rain... To further complicate matters, no one at the Cayenne end of our 2MHz radiotelephone circuit would speak English; and not one of the 34 souls on board our vessel spoke French. Pilotage and medical information

Have Bug -- Will Travel - Continued

was sent/received from WHAO to WCC on HF CW, thence via commercial circuits to/from Cayenne. Each round-trip exchange requiring 20-30 minutes. Finally, a pilot launch arrived alongside. Six men, including a doctor, clambered up the Jacobs ladder, bundled up the injured man and lowered him into the launch which soon vanished into the mist at high speed. All this with no understandable verbal exchange whatsoever... Several hours later we received a short message indicating he had survived an operation and it was two weeks before we learned he was recovering, but would be laid up for several months.

As we came back up to normal sea speed and on track for the Cape of Good Hope I began copying weather broadcasts from Brazil in Portuguese and translating same for the bridge, since all translation pages from weather publications in the radio shack and in the chartroom were missing. My one year of high school Spanish 45-odd years previously, was of marginal help but better than none at all! No complaints, so assumed (1) no one paid a bit of attention to the weather forecasts, or (2) the "deciphering" was acceptable.

Enroute along the South American coast and across the South Atlantic we were fortunate in having good weather (for the region). In the latter stages of the passage, due to giant swells coming up from Antarctica, gale-force winds and ocean currents, we experienced a couple days of a mean combination of roll, pitch and heave. Copying traffic on the "mill" now became a real chore as the blasted typewriter was bolted down athwartship and the carriage would "take off on its own" at each roll. So, type with one hand and hold on to the carriage with the other was the drill. (Surely was glad there were no 2-3 hour press schedules to copy!).

We made landfall off Capetown and coasted down to Cape Agulhas (the southernmost point on the African continent), then shaped course for East

London. The waters immediately south of Agulhas are among the most dangerous in the world and known to have the phenomenon of "holes in the ocean". This is due to strong currents, large seas, and abrupt shoaling from 4,000+ fathoms to 150 fathoms in just a few miles. It is in this area that numerous large vessels - passenger ships, tankers, freighters have disappeared without trace, "running under" at full speed as if falling off a cliff. Arriving in the open roadstead of East London, we were forced to anchor due to port congestion. We dropped the hook in 18-20 fathoms and laid there for several days, with an onshore wind of 30+ knots, a large swell and a mean cross sea. We rolled, pitched and corkscrewed mightily! At one time it appeared necessary to proceed to sea to ease the motion and prevent hull damage, but late on the afternoon of 10 September we went through the breakwater and laid alongside Dock D. Custom and Immigration formalities were taken care of with efficiency and in a friendly fashion. Those not on watch hit the beach for a bit of relaxation after our 6,300NM passage from Pascagoula.

"Tune in" next month for the conclusion.

Howard, W4IIG

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GENERAL ADMISSION TICKETS: \$5.00

GENERAL TABLE SPACES (8' Table included): \$10.00

COMMERCIAL SPACES (8' Table): \$20.00 First Space, \$15.00 Each Additional

GENERAL INFORMATION

DEADLINE FOR ALL RESERVED SPACES AND ADVANCE TICKET SALES IS DECEMBER 29, 1989. No space reservations or advance tickets after that date. Any unsold spaces will be available on the day of the show. All monies for advance tickets and reserved spaces must be received no later than January 5, 1990.

AMATEUR RADIO EXAMS GIVEN AT 10:30 AM. Pre-registration recommended. Limited Walk-Ins. Contact Al Bailey at (804)233-6461 or Phil Giella at (804)561-3020.

60,000 sq. ft. building with electrical outlets available. Well lighted and heated. Drive-in available Saturday for unloading and loading. Drive-in Sunday morning can not be guaranteed due to large crowds. Entire show inside. No outside facilities available.

Exhibitor, hourly, and major door prizes. Hourly door prize drawings begin at 10 A.M. Major prizes drawn at 3:30 P.M. You do not have to be present to win the exhibitor or major prize drawings.

Building available for set-up from 2:00 P.M. until 10:00 P.M. on Saturday the 13th. Will re-open at 6:00 A.M. Sunday for set-up. Armed security at all times.

RV overnight parking with electrical hook-up available Saturday night for a \$15.00 fee. No sewer hook-ups are available. Fee must be paid in advance to Richmond Frostfest. Free overnight parking without hook-up.

Talk-in provided Sunday morning on the 146.88 and 145.43 repeaters.

TICKETS AND RESERVATIONS:

Mark Huff, WA4DHY
(804)747-0227 Evenings
7 P.M.- 10 P.M. Sun. - Thurs.

OTHER INFORMATION:

Bill Mason, AB3P
Frostfest Chairman
(804)745-5822 Evenings

REGISTRATION FORM

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BUSINESS NAME or AMATEUR CALL SIGN _____

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_____ GENERAL TABLES (8') @ \$10.00 EACH.....\$ _____
(Non-Commercial Exhibitors must also purchase General Admission Tickets)

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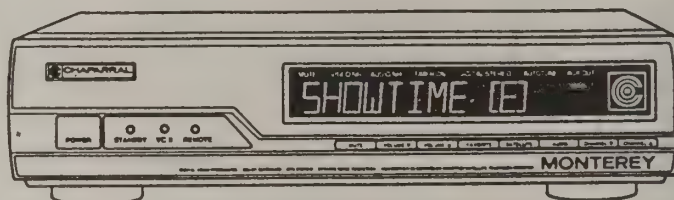
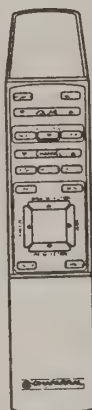
January 1990

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Foundation For Amateur Radio
Ham of the Month

Paul C. Buinicki - WB3KIW



Paul ("Nicki") Buinicki has been a member of the Anne Arundel Radio Club for more than 11 years, and active throughout that time. He has also been a member of the Elks Lodge for several years and active in it and other community groups.

He is blessed with a shock of blondish/white hair and a full beard and serves, gratis, as Santa each year for several groups, including the AARC at its annual Christmas Party. His jolly Santa personality is year 'round and would describe him well in his dealings

with everyone he meets. Despite a frail heart, he served as Santa several times in 1988.

Within the Ham community, WB3KIW he is known as a goodwill ambassador. He has been faithful in serving in public service and annual club activity.

After having helped create the present AARC club facility, and modernizing the interior, he became its "cook" and offered hot dogs at club meetings. Until health restrictions interfered, he was "Mr. Popcorn" at all club meetings, keeping hot popcorn available for guests and members.

He was present at Novice training classes, helping students feel at ease and offering "Elmer help" with gear and code practice.

And guess who the cook has been for many, many AARC Field Days!!!

An article appeared recently in the Annapolis "Capitol" newspaper in connection with Buinicki's selection as Elk of the Year of Annapolis Lodge No. 622. The story further describes his activities and captures his Santa image. The article states that he "has been a member of the Elks lodge since 1968 . . . and served on several lodge committees. He is most recognized, however, for his role as a natural Santa Claus during the Christmas holidays at local hospital children's wards and for Elks holiday parties."

Buinicki retired from federal government service after 45 years, including 30 years in the Navy.

To quote Bill Cooke - K3CN, an acquaintance of Nicki who is a ham of over 50 years and a charter member of AARC, "You will be hard put to find anyone who has done more physical work on behalf of Amateur Radio and its public service to the community."

(Nomination submitted by Al Nestor - N3EOD)

Ham of the Month

CRITERIA

Following are guidelines for nominations for FAR HAM OF THE MONTH.

QUALIFICATIONS: ANY licensed Amateur in the local area who has contributed significantly to the Amateur service and/or its image in the community.

REQUIRED INFORMATION: 1. Name, call and address of the nominee.
2. Description of the contributions which have been made by the nominee.
3. Name, call and phone number of person making the nomination.

NOMINATION FORMAT: Nomination in narrative form is preferred. Please be sure the material is factual. We would like to keep the finished article to under 700 words but you may write as much as you need to do a good job of "selling" your candidate. Any necessary editing can be done later by the committee. In most cases the committee will be in touch with the person who submits the nomination before publication is made.

AWARD PRESENTATION: Whenever possible, Ham of the Month awards will be presented by a FAR representative at a local club meeting or special activity.

There are over 50 clubs within the Foundation and there must be many "special" people deserving of recognition. Send in your nominations any time throughout the year. Development of the award process will be based on the volume and quality of activity.

Three Foundation Trustees will serve on the committee to select the FAR HAM OF THE MONTH. Both Maryland and Virginia residents are involved on the committee and they are hoping to receive nominations from all local clubs and all jurisdictions. Selection of one candidate will be made each month. Any additional nominations may be held for consideration in future months. We suggest maintaining confidentiality whenever possible. Any award is best received as a surprise.

For further information contact HAM OF THE MONTH committee chairman Tony Young, WA3YLO at (301) 262-1917. Send nominations in care of AUTO-CALL
P.O. Box 7612
Falls Church, VA 22046-1452



Congratulations to:

Hugh Turnbull, W3ABC on his re-election as Director of the ARRL Atlantic Division. Hugh has served as Director since 1982 and was Vice-Director for two years before that. He is currently a member of the Board's Executive Committee, has been Chairman of the RFI Task Group since 1980, and is the ARRL representative to the Accredited Standards Committee C.63 Working Groups for RF immunity and the CISPR Sub-committee G on Information Technology Equipment. He is also Chairman of the Foundation For Amateur Radio's Scholarship Program.

(From ARRL Letter 11/22/89)

Kay Craigie, KC3LM on being elected to her first term as ARRL Vice Director of the Atlantic Division. She has been Section Manager of Eastern Pennsylvania since 1986. She has been particularly active in revitalizing the Skywarn program and has worked especially hard to see that the efforts of volunteers would be recognized.

(From ARRL Letter 11/22/89)

Kenneth L. Cohen, NI3F on yet another honor in being elected Chairman of the Pastoral Care Advisory Committee of Howard County. He is also serving as Howard County Ethics Commissioner and is SM of Maryland/DC Section of ARRL. Cohen is Rabbi of Beth Shalom, the Conservative Congregation of Howard County affiliated with the United Synagogue of America. He will assume the new Pastoral Care Advisory Committee duties on January 1. The outgoing Chairman of the Committee is the Reverend Glenn Ludwig, a Lutheran pastor in Ellicott City, Maryland.

(From Beth Shalom Public Relations Office)

Ken Miller, K6IR, on his election to the Board of Directors of Palmer National Bank of Washington D.C. In addition to his role as a director, he also serves as a member of the bank's Investment Committee. The bank provides exclusive financial services to affluent professional individuals, partnerships and corporations. Ken is a very active Amateur, a Life Member of the ARRL and the League's DXCC Honor Roll, a member and past president of the National Capitol DX Association, and a member of the Potomac Valley Radio Club. He is also a member of the Board of Directors and Chairman of the Grants-in-Aid Committee of the Radio Club of America, Inc., the world's first radio communications society, founded in 1910.

(From Press Release of National Capitol DX Association)

All the volunteers who assist in the Training programs. Excerpts follow from a long letter of appreciation from a grateful student, David Mercier. He wanted to publish his thanks to all "those special Ham volunteers who take the time to help us become 'Hams.'" (See page 36)

Our Cover Story

Thanks to Holly Bevan for sending the only submission for the New Year's cover. Unfortunately, it was not possible to enlarge it the 400% that would be required for the cover, so you will find it inside, on page 50

The picture we used was taken out of the archives and the "youngster" would now be about 32 years old by now! According to the old books, this was the Junior Op of Austin ("Red") Harris who held the call W3IPO at that time. Does anyone have an idea of the present whereabouts of "Little Red?"

Silent Keys

Clifford A. Fling, W4TZP, died of a heart attack August 31 at the age of 56. He attended Capitol Radio Engineering School and for more than 30 years was projectionist for Pitt's Tally-Ho Theater in Leesburg, Virginia. Old Timers may remember him when he signed KR6 from Okinawa in the mid '50s. In the late '50s and early '60s he was Net Control Officer for the Loudoun County Civilian Defense Network. He will be missed as a close personal friend.

(Submitted by Charles Preston, K4LJH)

Henry Trice, WA3PNL. No details were available at press time.

(Submitted by Bill Kight, WA4MUA)

Guest Editorial

David Mercier (Awaiting license)

(Following are excerpts from a letter received from a student who wanted to express his appreciation to the instructors who took the time to help on the training classes. Dave mentioned each of his instructors in his letter but we left the names out to save space and to make this a letter of general appreciation to all of the volunteers in the training programs. It's nice to hear how much your efforts are appreciated.)

THANK YOU

"Thank you (to the instructors) from the Mount Vernon and Alexandria ARCs who, through hard work, patience, and friendly encouragement, helped me obtain my ticket in Amateur Radio." (He got the information about classes from Auto-Call) "and away I went, scared to death but determined." (It turned out that) CW wasn't as hard as I thought. We laughed and joked over the copy we made, but soon it started making sense. The (teachers) who taught us theory were just great. Of course each student had CW tapes and books from the ARRL which we studied at home as well as at class, but it was fun." "The time that (the instructors) spent with us is, and was, greatly appreciated." "At times I wondered how they could do it with smiles and encouragement after some of the dumb questions I would ask. But always - and I mean always - they would take the time to explain and help. They would even let you call them at home if you needed help. I thought that was great, but then came the icing on the cake. John offered to come to class early in order to help me on the math part of the theory.

"Suddenly one night we took our CW test, and imagine my excitement when I was told I passed. 'Half way through,' I thought. I was really scared of the Theory part but, as I looked at the questions, the answers came to me - thanks to the Tune in The World book and the great (club instructors) who went over the lessons with us.

"I went out in the hall and paced until John, with a big grin, stuck his head around the open door and stated, 'Congratulations, you're a Novice Ham operator.'

"I did it, I really did it! I could hardly sleep that night, and I (laid awake thinking) thought about all the effort and time spent by the Ham Volunteers (to help us reach our goal). By the time this is read, I will be on my way to a Tech license. And for all my old CB friends, I can only say, 'If you really want to 'Tune in the World,' come on in, the water's fine."

"Thanks again to all the instructors. And may I wish you all a very special, prosperous New Year."

Sincerely,
Dave Mercier

Amateur Radio in the Early Nineteen Thirties

By Jack Geist - N3BEK

The year was 1932. The Nation was trying to pull itself out of the great depression. The superheterodyne broadcast radio had been accepted as the standard. Its station-separating ability (selectivity) simple single-dial tuning and built-in power supply plugged into the house wiring was a vast improvement over the earlier tuned-RF radios with several tuning dials and Battery of battery-eliminator power supplies. Broadcast-radio was becoming an important part of our lives. WLW in Cincinnati was planning a class-B, plate-modulated 500-kilowatt broadcast transmitter. Radio Amateurs had discovered "skip-distance" communication on frequencies up to thirty megacycles (it was mc in those days, not MHz), and they were experimenting with even higher frequencies. The number of Amateur-Radio operators had grown to over 30,000 and would reach to over 46000 by the end of 1934.

In 1932, at age sixteen, I received my first Amateur operators license and a station license for W3CPG. The operator's license was an impressive legal document issued by the Department of Commerce. The exam consisted of a written test (no multiple-choice in those days) and a code test of five-letter groups at ten words a minute. In 1933 I passed the exam for the Unlimited Amateur Radiotelephone endorsement. The exam consisted of drawing from memory the complete circuit diagram of a phone transmitter, and explaining the function of every part shown on the diagram.

The 1932 issue of the ARRL Handbook and QST magazine gives a picture of Amateur radio at that time. The handbook was a hard-cover book of 219 pages with an additional 24 pages of advertisements. The Handbook in its ninth edition was written by Edward Handy, Ross Hull, A. L. Budlong, Jim Lamb, and George Grammer, all big names in the early days of ARRL.

Hiram Percy Maxim, founder of the organization was still its president.

A photo of the ARRL radio station, W1MK at the time, shows a neat, convenient operating position. Transmitting equipment included a self-excited, power oscillator on eighty meters and a forty-meter, crystal-controlled transmitter, both of open construction, mounted on a standard work bench. They presumably both operated at near the legal limit of one kilowatt, direct-current, plate input power. A photo of the power supplies in a separate room shows an impressive professional-looking array of electrical equipment including a motor generator and a mercury-arc rectifier (more about this later).

The first Chapter of the Handbook, entitled Amateur Radio, traces its history from the beginning in about 1901 with long-wave spark through - through banishment of Amateurs to below 200 meters, and the surprising performance that resulted¹ - the recruitment of Amateurs to operate Navy stations during World War I - the introduction of vacuum tubes after the war - the switch from spark to CW - the move to "short-waves", and the miraculous distances achieved with low power - the introduction of amplitude-modulated radio telephone - and the communications provided by the Amateurs in over twenty major storms and flood emergencies in the period from 1919 to 1931.

In February 1932 the Amateur frequency bands were modified to the following (in kc):

1715 to 2000	28000 to 30000
3500 to 4000	56000 to 60000
7000 to 7300	400000 to 401000
14000 to 14400	

¹ The first two-way transatlantic communication was achieved in 1923 on 100 meters. The sunspot cycle was at or near minimum. Had the tests been made a few years earlier or a few years later, propagation would not have been sustained at these frequencies.

See photos on page 38. Let us know if you would like to see this column continued in future issues.

Nostalgia

Here are some rare, original photos of the early days,
from the files of Elizabeth Zandonini - W3CDQ



Top Left: Hiram Percy Maxim
Top Right: K.B. Warner

Right: Mercury Arc

Below: 1930s "Miniaturization"



Washington Radio Club meeting in 1932

Metrovision

FAST SCAN - COLOR - ATV

Meetings: Quarterly: Call for next meeting time and place.
Repeater: WA9GVK/4 (Video and Audio) 425-431 MHz in; 438-444 MHz out
Also accessible on 144.970, simplex, audio.
On-the-air: Sundays at 8:00 p.m.
Mailing: Metrovision, Inc., P.O. Box 8231, Falls Church, VA 22041
Information: Dick - WB3EPX (301) 439-8135
Gene - AD3F (301) 774-5307

In looking back over 1989, we can see that the Metrovision ARC has done quite well in both the technical and the membership categories. Our new 900 MHz ATV capabilities have shown much promise in the past few months, after an initial problem with filtration. With the new transmit and receive changes on 440 MHz, we look forward to having less interference from packet and other sources. We hope that many of our club members and friends will eventually be able to receive ATV on 900 MHz. It only involves purchasing a receiver and antenna which should not cost more than \$160.

Metrovision's overall membership during 1989 rose by almost eighteen percent, bringing our total number of members to forty. We hope to add even more members to our roster during 1990.

Metrovision was unable to participate in last November's Marine Corps

Marathon due to technical difficulties. We hope to have our problems solved so as to participate in the 1990 marathon.

We want to announce the change in our repeater transmit/receive frequencies: the new transmit frequency will be 426.250 MHz and the new receive frequency will be 439.250 MHz. As you can see, we are just reversing the frequencies that we had. The two meter audio link will remain the same at 144.970 MHz.

We have no new check-ins to the Sunday night net in the past month but Gene - AD3F is now sending video from his QTH. Gene, by the way, is our new Metrovision Vice-President.

I want to take the opportunity to wish all our members and friends a most happy and prosperous new year. See you on ATV.

Dick, WB3EPX



Photos from Metrovision Picnic at QTH of W3PJM & K3AG
W3EW, YF/N3GHY, N3GHY, W3PJM - N3GHY, KA3TMQ, KA3TQD, W3PJM, W3EW
KA3TMQ, N4MWU, KA3TQD

Maryland Mobileers

Meetings: First Friday of each month at 1930 hours. Basement of Police C.I.D. Building at Crownsville State Hospital Grounds, Route 178 and Crownsville Road.

Repeater: 146.805 MHz (output) in Millersville

Breakfast: 15 days after the regular club meeting.
Held at Grapevine Restaurant in Odenton, Maryland at 0900

Nets: Mondays - 8:30 p.m. on 146.805 - Traffic and Information Net
Tuesdays - 8:00 p.m. on 144.215 - SSB Net
Wednesdays - 8:00 p.m. on 147.495 - FX Simplex Net

Contact: Bill Dillon - WA3SCW* ((301) 551-8972 or
'@ K3IVO' in packet

Address: P.O. Box 784, Severna Park, Md 21146

The Maryland Mobileers Amateur Radio Club held its annual Christmas Party/Officer Installation on December 1. The party was held at Snyder's Willow Grove in Linthicum and was attended by about 48 members, XYLS, and guests. Matt - N3GZM won the door prize, a \$100 gift certificate for the Maryland Radio Center. Everybody enjoyed the good food and socializing. Thanks to Nancy - NT3Z for making the arrangements. New officers for 1990 are:

President: Bob Bradt - K2EB
Vice Pres: Ed Calhoon - W3DEQ
Secretary: Bill Dillon - WA3SCW
Treasurer: Tom Wilkison - KA3OMU
Director: Ted Pyle - KC3GY

New MMARC members: N3BIN, N3HFL, KA3TJI, KA3URA, AND N4UFX

Due to pending destruction of a county building, the MMARC repeater was moved in late November from Crownsville to Millersville. The new repeater location provides greatly enhanced coverage although there are some "dead spots" in the east. A new repeater controller (ACC-96) has been ordered, received, and will soon be programmed and installed to provide enhanced autopatch services. Thanks to K2EB, K8JW, W2OES, NS3V (a Motorola representative), and Bill Taylor for moving the repeater.

There is a new ARES/RACES repeater operating on 444.95 MHz (output) and sponsored by a MMARC member. P-L tone 1B or DTMF 4951 will raise the repeater. DTMF 4950 will drop the repeater.

MMARC awards the "Warbler Award" to the member who times out the repeater the most each month. Recent winners include: July - KC3YY, August - N3FHM, September - six-way tie (not issued), October - K3UBC, November - W3IKO.

MMARC placed took fifth place, nationwide, in Class 2A/Battery/QRP in the June ARRL Field Day. The club, using call sign NC3F, made 761 QSOs, using 5 watts or less, and had 16 participants. Thanks to NS3V, Field Day Chairman, and all operators and support crew.

Bill - WA3SCW
Secretary

Shenandoah Valley Chapter #137 QCWA

Meetings: 3rd Wednesday of September, November, January, March, May, July.
Jimmy's Restaurant in the Holiday Inn on Rt 50 at I-81 Exit 80
Social Hour 5:30 p.m. and Dinner ordered at 6:00
Guests are always welcome- reservations are required.
Call (703) 662-7526 by Noon of the meeting day.

Information: Secretary/Treasurer Guy Black, W4PSJ (703) 722-4952

Mailing address: 1201 Woodside Drive, Winchester, VA 22601

Shenandoah Valley Chapter No. 137 of the Quarter Century Wireless Association met on November 15 with 22 members and guests present.

Frank Taylor - KE4KF read a letter from the widow of Maynard Boyce, - KB4RFO thanking everyone who had helped her dispose of Maynard's radio equipment. Perry Crabill played a cassette recording of a song called "Brass-pounder." This was written and sung by Jim Queen - KB3Y, who is a professional Bluegrass fiddler living in Oxon Hill, Maryland. Perry obtained the recording through an advertisement in QST.

John Kanode - N4MM, Director of the Roanoke Division of ARRL, reported on ARRL and FCC matters. He discussed the pending Budget Reconciliation Bill in Congress which calls for imposing license fees for Amateurs, and the 220/222 MHz reallocation pending in the U.S. Court of Appeals. ARRL is gearing up for the 1992 World Administrative Radio Conference which will consider reallocation of the 3-30 MHz spectrum. Broadcasting interests are expected to try to do away with Amateur use of the 40 meter band altogether.

George Ritter - W4UGX, chairman of the Nominating Committee, offered the following slate of new officers to serve for the coming year:

Walter Johnson - WA4HVV to continue as President;
Edward Rich - K3THD to remain as Vice President
Guy Black - W4PSJ to replace Perry Crabill as Secretary/Treasurer

There being no nominations from the floor, a unanimous ballot was cast for the Nominating Committee's slate.

Walter Johnson presented Golden Anniversary Award certificates from QCWA Headquarters to Neill Woods - W4LOG and Perry Crabill - W3HQP, to honor their 50 years in Amateur Radio. Neill's original call letters were W3HAM; Perry still has his original call.

The speaker was Mr. Phillip Whitney, who has spent 55 years in the radio broadcasting business. For 48 of these years, he was at WINC, the first radio station on the air in Winchester. He was at one time president of the Virginia Association of Broadcasters.

Mr. Whitney introduced his subject as "130 Years of Broadcasting in Virginia." He based the early date on Mahlon Loomis' wireless experiments with kite-born antennas in Clarke County in 1866, 17 years before Marconi was born.

Both KDKA in Pittsburgh and WJR in Detroit claim to have started broadcasting in 1920. Station WTAR in Norfolk was the first on the air in Virginia, in 1923; WDBJ in Roanoke was next, in 1924.

Station WRVA in Richmond came on the air in 1925. At one time their antenna was installed on a 326 foot wooden tower made out of 2x4 lumber.

Station WINC in Winchester went on the air in 1941; Mr. Whitney went to work for them a month after they began operation.

(Continued)

Baltimore Radio Amateur TV Society

Meetings: Bi-monthly, Irregular. Next: October 19, December 12, 7:30 p.m. at Baltimore County General Hospital on Old Court Road in Randallstown.

Board/Business Meetings: 1st Saturday of each month at 3:00 p.m. at Pikesville Library, 1301 Reisterstown Road in Pikesville.

Nets: W3DIR/R 147.63/03. Also via 224.88/R and 443.40/R linked to 63/03.
Weekly DX Net on Thursdays at 9:00 p.m., KN3P NCS
Horsetrader Net on Mondays at 7:30 p.m., KT3V NCS
Weekly News Bulletins on Saturdays at 1:30 p.m., W3GXX NCS
Packet Net Friday at 9:00 p.m. W3GXT NCS

Address: P.O. Box 5915, Baltimore, MD 21208

Novice Class Information: Call Bill Self, KA3IDB (301) 669-0149

Any reprints from this column must be approved in advance.

Our annual elections were held on December 2nd. We congratulate our four officers, three of whom were re-elected and all four of whom ran unopposed.

President: Bob - WA3SWA
Vice Pres: Mike - N3GDF
Secretary: Mayer - W3GXX
Treasurer: Les - W3GXT

Six of our twelve members-at-large of the Board of Directors were elected from the nine who ran. Those emerging victorious were: Bill - KA3IDB, Gil - N3FDO, Don - N3FQC, Franz - N3HFS, Mike - N3EZD, and Jim - KA3TPA. They will serve through 12/91. The following still have one year to run and will serve as Directors through 12/90: Terry - WA3DZZ, Frank - N3GIO, Sam - W3MQF, Jinx - W3JPG, Art - NC3D, and Gary - KA3SGG. Congrat's to all.

Congratulations to Dave (ex-N3FDG) and Marian on the birth of Thomas Michael on November 1. Dave recently upgraded to Advanced and is now KD3PC. Congrat's, also, to Don - KA3TCB and Connie, as well as to sister Kim, on the birth of Richard Alan on October 26. The BRATS maternity wing is crowded once again!

Our VE Exams are scheduled for the following Sundays in 1990 at 11:00 a.m., at the Maryland Science Center: January 21, March 18, September 16, and November 18. The May exam will be given at the Maryland FM Hamfest promptly at 9:00 a.m. Contact Steve Silberman - K3RMX for further information. Phone (301) 876-9092.

Holiday greetings and best wishes for all from all of The BRATS.

Mayer, W3GXX

Shenandoah Chapter #137 QCWA - Continued

In 1946 WINC put their FM affiliate WRFL on the air from on top of the Blue Ridge Mountain, north of Linden. This was the first FM station in the Shenandoah Valley and the second one in the state. Because of its mountain-top location, it had wide coverage, extending into the Washington, D.C. area. It now operates as WINC-FM.

Lloyd Penrose - NC8G, a past President of the Chapter, is on the sick list and is undergoing chemotherapy.

The next Chapter meeting will be held on January 17, at Jimmy's Restaurant.

Perry Crabill, Jr., W3HQX
Secretary/Treasurer

Pentagon Amateur Radio Club

Meetings Monthly, on the second Wednesday of the month. Noon.
PARC clubroom (5B272), The Pentagon

Repeater: K4AF/R, 444.55 MHz. CTCSS 88.5 sometimes in effect.

Mailing: P.O. Box 47063, Washington, DC 20050

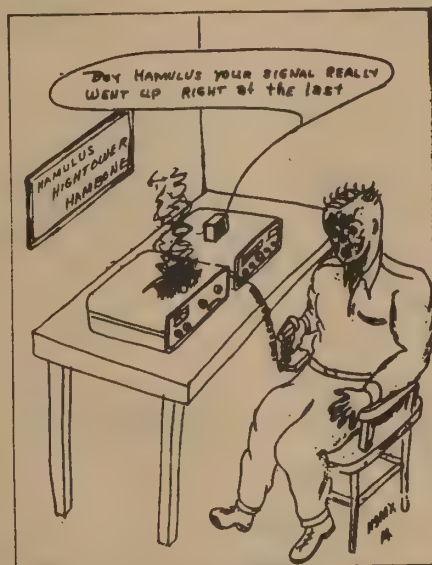
Information: David G. Boyd - K9MX (202) 695-2020 or (703) 659-6241 or
Dick Lum - NH6E (202) 697-0477 or (703) 938-9215

Upgrade fever hit the Pentagon ARC hard this month. Carla Nicholson now sports /KT after her new Novice callsign: KC4NEY. Bill Klein - N4VBW is an Advanced, and Pat Herendeen - KA3UWC is awaiting the arrival of his new General ticket. Probably the best part of all these upgrades is that it has inspired several other PARC members to hit the books and code tapes again for our next exam session on 12 January.

The club room has a great new look! Thanks to the diligent efforts of Bill Smith - W4HMY, and Carla Nicholson - KC4NEY/K, the console is really looking good. All the inset panels have been redone and all our new gear has been integrated into the new consoles. VHF and packet operations are now in the middle, while HF stations have been placed on the ends, in the "wings" of the console. We still have more to do, but the clutter and tangle of wires is finally gone.

The new callbooks have arrived and thanks to Don Bedell - KA3BKU, we saved \$20 on the set! We also have the new linear in operation on the 440 repeater (the old one died), so coverage should be much improved.

David Boyd, K9MX



Third Annual
York Springfest

The Third Annual York Springfest (Ham/Computer) will be held

Sunday, March 4
At the Dover Firehall
Dover, Pennsylvania

FOOD REFRESHMENTS VE EXAMS AWARDS
Blacktop Parking

Inside Tables \$10

Tailgaiting Free

Registration \$4.00

Unlicensed spouse and children under 12 Free

General Admission 8:00 a.m. Talk-in on 146.37/97 and 147.93/33

For Advance Information and Registration
Call (301) 239-3878
or write

YORK SPRINGFEST
P.O. Box 316
New Freedom, PA 17349-0316

National Capital DX Association

Meetings: Irregular.

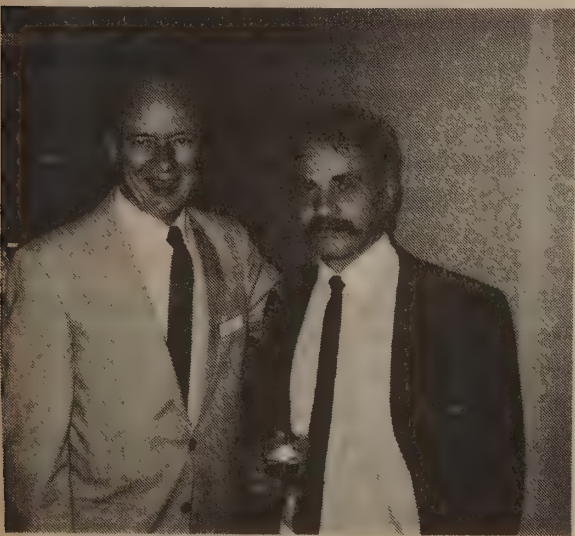
Contact the Secretary for information.

On-the-Air: Every Sunday at 8:30 p.m. on 147.420. All are welcome.

Information: Ralph Bates, K1ZZI (703) 237-0321

NCDXA President Dave Hammond - WC4B comments that one of the most successful activities NCDXA has ever done was the 1987 Super Golden Jubilee competition where we piggybacked on the ARRL Golden Jubilee of DXCC and gave plaques to all our members who worked 200 or more countries in 1987. This friendly competition led to drastically increased operating activity and improved the number and quality of putouts. He would like to do something like this again, but limit it to 10 meters and the WARC bands. Please think this over so we can discuss it at the next couple of meetings.

Ken Miller - K6IR reports that the well known European DXer, Jacky Calvo - F2CW of Nercillac, Jarnac, France may be joining the Norwegian group during their planned operation from Bouvet beginning around Christmas. Jacky is a superb CW operator and will add much to the success of this DXpedition in putting this very rare country on the air. Below is a picture of Jacky and Ken.



*Well known DXer Jacky Calvo, F2CW
with Ken Miller, K6IR*

Welcome Aboard to new member Don Daso - WA8MAZ.

Pete Huber - K3ZR continues to recover from his heart attack. (He has been in and out of the hospital a few times the last couple of months, however, he is doing better now.) Unfortunately he had to cancel his annual trip to Barbados for CQWW.

All of our 1989 meetings were held in members' homes rather than restaurants. It was possible only because six of our members were willing to open their homes to us. Dave would like very much to continue this practice through 1990. We try to have a balance of Maryland and Virginia locations. Please think ahead and see if you can bring yourself to volunteer to host a meeting.

Steve Rock - N4SR has put together a PacketCluster User's Guide which contains detailed information on commands currently used on the Cluster. In addition he has included hints on setting up your TNC as well as Cluster Tips. For a copy, send a #10 SASE (two stamps) to Steve Rock, N4SR, 8819 Sylvania Street, Lorton, VA 22079.

MEMBERSHIP DUES were due October 1st. Are you paid up? Full membership dues are \$15.00 and Members at Large are \$7.50. Please make checks payable to NCDXA and send to Henry Herman, W3UJ, 11803 Enid Drive, Potomac, MD 20854.

On-The-Air Meeting: Please join us for our weekly on the air meetings, Sunday at 8:30 p.m. on 147.420

Have a Happy New Year

Notes from K6IR and
NCDXA Newsletter by K1ZZI

Metropolitan Communications Network

Meetings: Quarterly, on the second Sunday of the month.
Time and place to be announced.

Repeater: N3AGB/R, 52.250 MHz in; 53.250 MHz out.
Accessible on 144.950 MHz in the simplex mode.

On-the-air: Saturdays at 1900 hours.

Mailing: Bob Sporn - WA3GGO, 9927 Cottrell Tr, Silver Spring, MD 20903

Information: Bob Sporn - WA3GGO (301) 434-1719

At the time of this writing, Charley Doehne, W3KZH is at Sibley Hospital recovering from a stroke. Harry Blutstein, W3AY is at the Washington Adventist Hospital after having a quadruple heart by-pass. We most fervently hope that by the time Auto-Call reaches you, both Charley and Harry will be home, well on the way to recovery.

THE SUNDAY MORNING COFFEE NET (6 METER AM) ON 50.4 MHZ AT 0900. Stanley Brigham, W3TFA surprised us, by his annual check-in. Stanley is active on QRP and it was through him we learned of Harry's operation. Six meters was open and Stan worked GM0GWX and PF3V. Joe Saunders - K3UAL had some antenna damage to his TV antenna and his ten

meter dipole, as a result of the recent stormy winds.

Yours Truly had a lesson in humility. I could never understand how some people had difficulty learning Morse code. Well, after three years of a mental block, I finally got on the low bands, worked Miami Beach, Florida on twenty meters and St. Clair Shores, Michigan. Checking in with the Monday morning net of the Rock Creek Alumni, among the check-ins from the Carolinas and Virginia and New York, to my surprise, was Boyd L. Nelson - KZ3Z, a neighbor of mine. Boyd lives only a few blocks from en. It took a lot of patience and hard work, but the reward in overcoming my mental block resulted in the satisfying feeling one gets after one gets his first ham ticket.

Bob, WA3GGO

Weather Net

I would like to take this means to introduce you to the West Virginia Weather and Travelers Net. This net is a member of the Skywarn System and meets on Monday evenings at 8:00 p.m. local time.

The National Weather Service may call on this net in time of need for storm watchings, flooding, tornadoes, etc. The purpose of this ARRL registered net is to get weather conditions and road conditions, as well as stream conditions, throughout the coverage area of the repeater system. This coverage includes portions of West Virginia, Virginia, Maryland, Ohio and Pennsylvania. The repeater frequencies are 146.685 Clarksburg, 147.285 Spruce Knob, 443.100 Buckhannon, 444.400 in Virginia and 145.290 Glenville will be added in the near future.

The net would appreciate having some of your members checking in on Mondays at 8:00 p.m. This net is trying to provide a public service and is not affiliated with any particular club. We hope to hear from your area from time to time.

J.R. Chiado - WJ8G, Net Manager

Mt. Vernon Amateur Radio Club

Meetings: Second Thursday of Each Month, 7:30 p.m.
Mt. Vernon Governmental Center, 2511 Parkers Ln., Alexandria

Repeater: WB4PDP/R 146.055 input 146.655 output

Nets: Every Tuesday at 8:00 pm (0100 UTC Wednesday's)
Starts on 2-meter then moves to 10-meter on 28.405

Information: Chris Morrow, W4WYL (703) 765-5964

Training Classes: John Forrest, NZ4A (703) 971-3905

Mailing Address: c/o Chris Morrow, W4WYL, 7408 Recard Ln., Alexandria, VA 22307

Our November program was presented by Dr. Henry Gray, an internationally recognized leader in the field of vacuum microelectronics. He discussed the history of the field (which he named), described current technology and capabilities, gave us a glimpse into the future . . . super high speed devices, ultra thin video displays . . . and he spiced it well with humor. Thank you so much, Dr. Gray, for an illuminating evening.

We are pleased to welcome three and a half (!) new members at the November meeting - Tom Lufkin WA4DAX, James K. (Ken) Simmons (in Novice class), Carol Eaton N4QHS and Dave Souza KA0LZD. Dave is the "half" member - we look forward to his becoming a full-fledged

member in December. Welcome to all four of you!

CONGRATULATIONS to Nina Sommers KC4IJE who upgraded to Technician (in October) and to Bob Dockery on the new call - NX3F (formerly KA3RVV).

Thirty-seven people signed in for the November meeting - what a terrific turnout! We discussed getting club T-shirts. Everyone is enthusiastic about the idea so MVARC members will soon be very recognizable in royal blue.

The subject of our January 11 meeting is not set yet, but it'll be great - please join us!

Marci, KM4VM

FOUNDATION FOR AMATEUR RADIO Widow's Assistance Program

The Foundation's Widow's Assistance Program has been in operation for many years and has accomplished a great deal for the families of our Silent Keys. The program offers to help widows (and other family members) evaluate and dispose of radio equipment in Amateurs' estates. Listings of Estate Sales are carried in the Shack Sales of Auto-Call free of charge and major items are offered for sale at local Hamfests. No fee or commission is charged.

Interested parties should contact a local Foundation member club or call the Widow's Assistance Program directly. Call Widow's Assistance Program chairman Bob Henkel, NA3R at (301) 649-4494 (evenings and weekends.)

Rock Creek Amateur Radio Assn.

Two Meter Net: FM 144.65/145.25 Mondays 8:00 p.m.
RCARA Alumni Net: 7.23 MHz, Mondays 11:00 a.m.
RCARA LUNCHEON: Wednesdays, 11:15 a.m., Anchor Inn, Wheaton, MD
Meetings: 7:30 p.m. the third Friday of each month at Vitro Labs
Mailing Address: P.O. Box 1913, Silver Spring, MD 20902

The 1989 Field Day results in QST revealed that the Rock Creek Amateur Radio Assn. finished 28th in the 4A Field of 100 entries. Congratulations to the guys and gals involved!

Community Service found Jon - KA3OVK and Bob - N3EWG spending a large part of Saturday, October 7th providing communication services for the Hemophilia Foundation bike-a-thon. Mike - KA3GSV also contributed many hours while assisting the NIH Club in various activities.

Carl - N3CFA offered a resolution of congratulations to Ethel Smith - K4LMB for her contribution to the success of Auto-Call. (Of course no one is forgetting John - W4HU in the wings.)

"A trip to Hyde Park for a Fire Side Chat to the Nation" was the title of Granny Klink - W3AFV's contribution to our November program.

It was a story about what a Radio Engineer had to do to put President Roosevelt on the air to the nation. It brought back memories for many of us, both in and out of the early days of the broadcast game. (Page 37 of the January 1989 Auto-Call carried an account of Granny's early contributions to television.)

Our V.P., Herb Lay - N3CDR's article under Hints and Kinks in the November QST was titled "Putting the Mini-Miser's Dream Receiver on 7 and 10 MHz.

Hans Goldschmidt - SM5KI was a guest at the October meeting. Hans, a former research engineer at a Stockholm Medical High School, hand delivered his 316 QSL cards to ARRL in quest of a DXCC, mostly earned with a wire antenna. He was a SSB pioneer from 1958, having the only receiver in Sweden when there were only ten in all of Europe.

Bob - KD3IO

MORE PROBLEMS

By the time we got into the final hours of production on this issue, the computer/printer equipment gave out completely and we had no chance for final corrections. Please exercise some more of that patience and tolerance for one more month!



The equipment is in the shop now and the electrician is due in again before Christmas. "Contingency Plan B" is in effect to have someone standing by to carry on next month if necessary. Cross your fingers and hope we will be back in business before long.

Ethel, K4LMB

Potomac Valley Radio Club

Meetings: Second Monday of each month. Next meeting January 8,
Room 2154 Tawes Building, U of Maryland, College Park
University of Maryland, College Park, MD
Repeater: Most PVRC members can be found on the 147.00 Ashton repeater.
Packet: N2FB 145.57, W3LPL 145.59, W0YVA 145.51
Information: Fred Laun, K3ZO (301) 899-1235 or
John Pescatore, WB2EKK (301) 622-0219

The PVRC Packetclustersystem has expanded, with nodes in Maryland, Virginia, and Pennsylvania. DXers from those states, plus West Virginia and Delaware, are regular connectees. Experimental links with contest and DX clubs in Ohio and New England have been made over HF. A link with the Yankee Clipper Contest Club resulted in 12 nodes with over 100 users being connected. Over the CQ WW SSB week-end, over 2000 DX putouts were made, representing over 150 countries.

The next regular PVRC meeting will be January 8th at the University of Maryland, Tawes building. All Amateurs interested in HF operating and contesting are invited to attend. Listen to the 147.00 repeater for information.

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Laurel Amateur Radio Club

A Volunteer Examiner Coordinator

Meetings: 4th Wednesday of each month, 8:00 p.m. at Capitol College on Springfield Road, Laurel.

Social: 2nd Wednesday of each month except December.

Nets: 1st & 3rd Wednesday of each month, 8:30 p.m. on 147.54

Mail: P.O. Box 3039, Laurel, MD 20708

Exams: 4th Saturday of each month, free at Maryland Radio Center.

Information: John - W3GFS (301) 490-5286 or Frank - K3LDE (301) 498-2213

Welcome to our new members: Rikkie Canada - WB4FBV, Bill Clark - K3MHZ, Lewis Jackson - KA3VIB, and Mildred Burett (Novice class member).

Recent Events:

Our October meeting was well attended and was a busy evening, with about 25 members and a few visitors in attendance. The election of officers for 1990 resulted in the re-election of John - W3GFS as President, Al - WA3QGA as Vice President, and Cathy - KA3QPU as Treasurer. Frank - K3LDE retired, with thanks from the club, as Secretary and editor of the FEEDBACK. George - N3GPR was elected as our new Secretary, Joe - KA3UZI is our new board member-at-large and Pud - W3DQI is the new editor of our newsletter. Dick - KA3QAP is retiring as the manager of our monthly exam sessions at Maryland Radio Center and will be replaced by John - WB3GXW. Many thanks from the members of LARC to all those who made 1989 such an active and interesting year and to those who have agreed to volunteer their time and skills next year.

Our VEC program had its most successful year yet in 1989. LARC's program, under the leadership of WA3QGA, remains one of only 16 VECs in the U.S. and the **only** one whose test sessions continue to be free of charge. We coordinated over 40 exam sessions in Maryland, Pennsylvania and Delaware, with tests given to over 1,000 people. LARC (as one of our own VEs) conducted 13 test sessions and gave about 800 test elements to almost 450 people.

As a side note, pre-registration is **NOT** required for our monthly exam sessions

which are given at the Maryland Radio Center.

The fall Novice class, taught by N3CKD and KD3S, is winding down as the 25 students graduate and pass their exams.

Beginning in late January, N3CKD and W3GFS will be offering a Tech/General class on Monday evenings. If you wish to register or get more information, call Frank - K3LDE at (301) 498-2213 or John - W3GFS at (301) 490-5286.

If you live in the greater Laurel area and are interested in joining an active club - come to a meeting, give us a call on 147.54, or call one of the club officers for information.

Happy New Year to all!

John, W3GFS

Happy
New
Year



Burney Alexander Williams
Son of "Bud" and Sandy Williams

Anne Arundel Radio Club

Meetings: 1st and 3rd Thursdays at 8:00 p.m.
Davidsonville Family Recreation Center, Queen Anne Bridge &
Wayson Roads off MD Rt. 214 near Annapolis.

On-the-air: Thursdays when there is no club meeting. 2030 Local on 147.705/105
Tuesdays at 2030 local time on 28.410.
The Chesapeake Bay Weather & Traffic Net on 147.705/105
at 1100 and 1500 every weekend day and public holiday
from April 1 to November 15.
Maryland Slow Net (MSN) every evening at 1930 on 3.7170 MHz
W3VPR Packet Bulletin Board on 145.09 MHz.
W3VPR Packet Bulletin Board on 223.40 MHz

Address: P.O. Box 308, Davidsonville, MD 21035

Information: Margaret (Holly) Bevan - N3BMB (301) 923-0229

An election was held on December 7th to choose the club leaders for 1990:

President: David Walter - N3BFO
Vice Pres: Doug Sweely - N2IBM
Secretary: Debbie Rogers - KA3TDD
Treasurer: Al Carter - KA3URB
Directors: Tony Young - WA3YLO
Rick Battle - KB3NG
Rick Hambley - WB2TNL

An installation dinner in honor of the new officials will be held January 12 at the Bay Ridge Inn.

Several work parties have been busy lately at the club site. The repeater housing facility was renovated. This required carpentry, electrical work and painting at a 30-foot level on an old radar pedestal. The club's new 440 repeater has been installed (444.40). Members voted at the November 16th meeting to buy two 220 repeaters, to be located at separate sites.

Bob Bruninga - WB4APR reports that the Annapolis Amateur TV Repeater is progressing. A remotely-controlled color video camera has been installed on the Naval Academy water tower with good visibility of both Severn River bridges, the Academy, the State Capitol, College Creek, the stadium and St. John's playing fields. With the proper equipment, anyone within line-of-sight of the tower can receive good viewing at home or mobile. Bob says the next step is to link his ATV repeater with those in Washington and Baltimore,

Buzz Borries, formerly KA3VFN, is now N3HQV.

Season's Greetings to all.

Holly - N3BMB

Watch That License Expiration

Don't let your Amateur license expiration date sneak up on you. Make it an annual Good Resolution and check it out the first of every year. That license is a precious possession that didn't come easily. Make very sure it doesn't slip away by oversight.

Shenandoah Valley Amateur Radio Club

Meetings: First and third Fridays of each month at the SVARC clubhouse on Grace Street in Winchester, VA.
Repeater: 146.22 in 146.82 out
Club Address: P.O. Box 139, Winchester, VA 22601

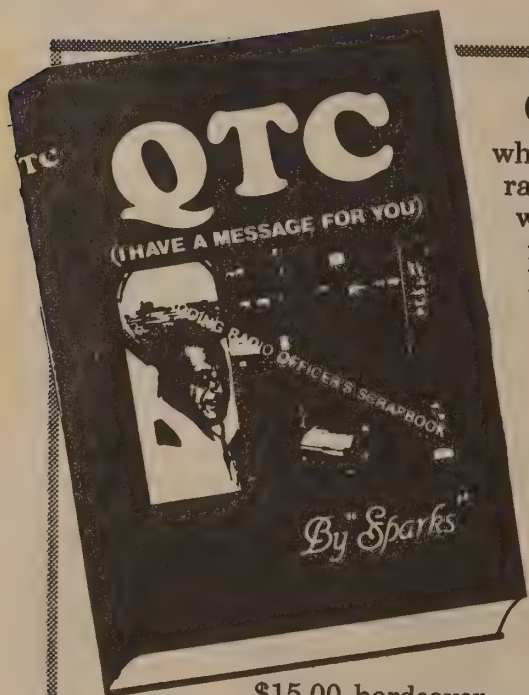
The Shenandoah Valley Amateur Radio Club was to have its Christmas Party on December 15. Joan - WB2CMV again agreed to plan this event. In past years it has been a complete success, with everyone having a very enjoyable time.

The meeting of December 1 was called to order by club President Cliff Kitts - WD4TZ. The 1990 budget was read and approved by the members present. Plans were finalized for the annual Christmas party. The committees gave their reports. John Kanode, Director of Roanoke Division, ARRL, gave a report on what is happening in ARRL and the FCC. One of the more important events announced was the dropping of fees on Amateur licenses from the Budget Reconciliation bill (HR3299). Your letters helped make our lawmakers aware of this unfair fee.

We are pleased to welcome our new member, Doug Rowe - KA5CFJ to SVARC.

Best wishes for the New Year.

Walt - WA4HVU



QTC is the story of a sea-going "Sparks" who spent most of his working life as a ship's radio operator. This thoroughly enjoyable and well written book recounts a number of exciting moments in "Sparks" career and the stories and histories of some of his professional heroes.

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Today, radio operators are being phased out and replaced with computers and satellites. "Sparks" are now a fast vanishing breed. An era is passing. This book is a tribute to the profession, nearly 100 years old, and to all the radio operators who sailed on the seven seas.

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2502 Cockburn Drive
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Call tollfree 1-800 442-1151

Vienna Wireless Society

25 Years of Public Service

Meetings: 2nd and 4th Fridays of each month, 7:30 p.m.
Vienna Community Center, 120 Cherry Street, Vienna, VA

Repeaters: K4HTA/R 146.085 in/146.685 out
222.340 in/223.940 out, 448.250 in/443.250 out

Nets: Every Thursday at 7:30 p.m. on 146.085 in and 146.685 out.
Pow-Wow Net Every Night at 9:00 p.m. at 28.400 MHz

Information: Brian Treadwell, WV4V (703) 938-1442 (H), (202) 457-7179 (O)

Training Classes: Paul Wilkins, AB4CY (703) 560-2779

Mailing Address: P.O. Box 418, Vienna, VA 22183

NEW DIRECTORS

Vienna Wireless Society members voted in three new directors on November 10. The new leaders are Ray Johnson - K5RJ, Dickson Lum - NH6E, and Pat Crosby - KA4FHK.

The three were elected from a slate of five and will serve during the 1990-1991 operating years. The new directors will take up their duties alongside directors Paul Wilkins - AB4CY and Jim Pettitt - KB4QFN on December 6th. The first order of business was to choose a President for 1990. Paul Wilkins, AB4CY won the vote. He, in turn, then then selected the other officers who will serve with him:

President: Paul Wilkins - AB4CY
Vice Pres: Pat Crosby - KA4FHK
Secretary: Stuart Yonkin - WB4FBL
Treasurer: Still open

The President and the new officers were to be sworn at the VWS Christmas Party on December 8th, but the weather man didn't cooperate! The installation/Christmas party was rescheduled to December 22. I hope we don't get snowed out this time! Prior to the installation, I will be giving the president's annual report to the membership.

Brian W. Treadwell, WV4V
VWS President

MARY HAD A LITTLE RAM

Mary had a little RAM with 512 K to go
But when she bought some fancy fonts her computer said, "Now, Whoa!
I've tried to give you all these things to meet your wish and wants
But you must get a bigger RAM if you run all those fonts."
The printer said, "I'll gladly print when data comes in place."
The View Screen said, "You're out of luck until you get more space."
She dashed down to the Tandy Store and bought some 18 chips
And when they got them safely in she knew she'd had good tips.
She went back home and booted up (and went by every rule)
And Mary now can laugh again, her RAM is staying cool.

Ethel Smith, K4LMB
12/01/89

Southern Maryland Amateur Radio Club

Meetings: 2nd Friday of each month, 7:30 p.m.
Church of the Nativity, Manchester Drive, Camp Springs, Maryland.
(Right at first light on Route 5 South of Beltway and immediately left into mid-block driveway).

Repeater: W3PT/R 147.15/147.75

Nets: Informal - Tuesdays, 8:00 p.m., W3PT/R
Informal - Thursdays, 8:00 p.m., 28.447

Information: P.O. Box 273, Cheltenham, MD 20623

The Southern Maryland Amateur Radio Club has been active in some public service events, such as the Marine Corps Marathon and the Boy Scout Jamboree-on-the-air that was held on October 21. Some of the other activities included were: live Space Shuttle listening and tracking, packet station, HF station, direction finding, and Mores code lessons.

Speaking of helping people, it's nice to see so many people helping out with the antenna raisings that some of the club members have had.

The club elected officers for next year. Congratulations to the following people:

President: Rick Creager - KK4GV
Vice Pres: Hank Mason - W3FVD
Secretary: Randy Urick - N4QWK
Treasurer: Willie Mank - W1ZX
Director: Tom Abernathy - WA3TAI

Congratulations, also, to:

Bill Curran - NW3M on his new call
Walt Robinson - WB3CDX on upgrading to Advanced
Dee Mann - N3HOV on her new call and upgrading to General.

The SMARC Novice class will soon be testing and that means more new hams on the horizon. Another good job done by the instructors, Lee -KF3T and Vic - WA3YUV

The club's Annual Dinner was to be held on December 16 - too late to get a report into this issue of the Auto-Call. We'll tell you about it next month - if we don't get snowed out!

Randy - N4QWK

Be Forewarned!

AMSAT is very concerned with all the QRM coming from USA based hams using FM voice transmissions who, hopefully, just don't realize that 29.000 to 29.510 MHz is set aside by international agreement as a passband downlink for mode A satellites.

Wrong use of this portion of the band could be hazardous to your ticket!

(From "SMARC SPARKS" September 1989)

MONTGOMERY AMATEUR RADIO CLUB

Meetings: First and third Wednesdays of the month at 7:30 p.m.

Lobby Auditorium, Executive Office Building,

101 Monroe Street, Rockville, MD.

Parking on G-2 level.

Repeater: 146.64 out/146.04 in.

Information: Hank Black, N3ESR, (301) 340-8595

Mailing: MARC, Inc., P.O. Box 611, Gaithersburg, MD 20877-0611

Recent activities of MARC included participation in Field Day, a Special Events Station at Olde Towne Day (Gaithersburg), and public service events such as Rockville's October Runfest.

Dinner meetings once every quarter are keeping members busy with their diets. Ernie's in the Quince Orchard Shopping Center seems to be showing a recent gain in profits!

The fox hunting season has begun. Chasing down an errant transmitter (a mike stuck down between the seat cushions of a car) recently didn't seem to be enough of a challenge for MARC members Cary, NI2Q and Mark NW3S.

They participated in the recent hunt held in Anne Arundel County. A detailed news account can be seen in the next MARC newsletter which is published six times a year.

Meetings upcoming include one on Radio Direction Finding, scheduled for January 17th. Hope to see you there or at any other meeting! The public is welcome, especially persons wanting to learn more about Amateur Radio or how to become a ham. MARC recently completed another round of code and theory classes for the Novice, Technician and General, thanks to the leadership of Ken Nichols, KA3KGL.

Hank, N3ESR

New Technology Center in Virginia

An ambitious new \$34.5 million center dedicated to technology transfer, idea sharing and technology networking has just been unveiled in Virginia. Sitting astride the Dulles toll road in a futuristic dark-mirrored pyramid, the Center for Innovative Technology (CIT), will pave the way for greater job development in the high tech sector. It also holds out the hope of funding new technologies that come out of Virginia's universities. The types of technologies that would be brought more quickly on line through CIT would be ones like the specially adapted computer system for severely handicapped individuals. The system operates through eyeball contact, obviating the need for any physical dexterity.

The project was the "brainchild" of former Virginia governor Chuck Robb and came to fruition through his efforts and those of former governor Linwood Holton. Holton now serves as president of CIT. The project is now under the purview of current governor, Gerald Baliles who says, the fact "that CIT works is plain to see." Giving credit to Chuck Robb for his efforts, Baliles has jestingly referred to CIT as "The House That Chuck Built."

(Information from McLean Providence Journal)

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Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone and all ads must be pre-paid. Estate sales for Widows Assistance handled by a FAR club will be published without cost. Since no effort is made to investigate advertisers, no warranty can be implied.

Copy must be received by the 5th of the month preceding publication.

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more information, please call Bill De
Zonia, Jr. (301) 740-4586 or write
6184 Devon Drive, Columbia, MD 21044

WIDOW'S ASSISTANCE PROGRAM

Estate of Frank Kohl, W4NM

KENWOOD TS-530S Transceiver	\$500
Reflectometer SWR/PWR Meter	15
Antek Research CMOS Keyer MK 1	75
SST Model T4 Antenna Tuner	40
WATERS Dummy Load - Model 334A	60
1KW Power Supply, four 866Jr. Tubes	50
VIBROPLEX Iambic Key	60
VIBROPLEX Original Bug	65
Azimuth Dual Clocks	10

All prices are negotiable

FAR Widow's Assistance Program

c/o Bob Henkel - NA3R

(301) 649-4494

Silver Spring, MD 20902

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7:30 a.m.

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120 Cherry Street
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FOR INFORMATION:

Harry Kaklikian, W4ACN
4941 Andrea Ave.
Annandale, VA 22003
(703) 978-4402

TALK IN ---- K4HTA/R 146.085/146.685


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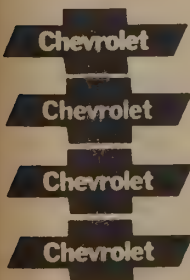
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REMEMBER The Famous **BRATS** Hamfest and Computer Fest. Timonium Fairgrounds. Sunday, July 29, 1990. For information 765or reservations, write to: **BRATS**; P.O. Box 5915; Baltimore, MD 21208. See you there! (7/90)

 Become a part of one of the country's fastest-growing vintage radio clubs. The Mid-Atlantic Antique Radio Club is an active group of radio collectors, restorers and historians. For a sample newsletter, write Joe Koester, 249 Spring Gap South, Laurel, Md. 20707. (301) 725-4229. (Swp)

AMATEUR RADIO NEWS SERVICE is an organization of editors and publishers of Amateur Radio newsletters and members engaged in public relations. Its purpose is to assist editors in any way possible. For information, write to Lee Knirko - W9MOL, 833 Park Plaine, Park Ridge, IL 60068 (Swp)



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FOR SALE: Kenwood TH25AT, 2-meter HT with head set. Less than a year old. Asking \$279. Phone David - N3GWL, days (301) 972-4263 or evenings 972-0038, Germantown, Maryland (01)

WANTED: Copy of Operators Manual of Kenwood TS-130SE that I might be able to copy. Will reimburse your postage. Greg -KA3DBG (946) 6460, Rockville, MD (01)

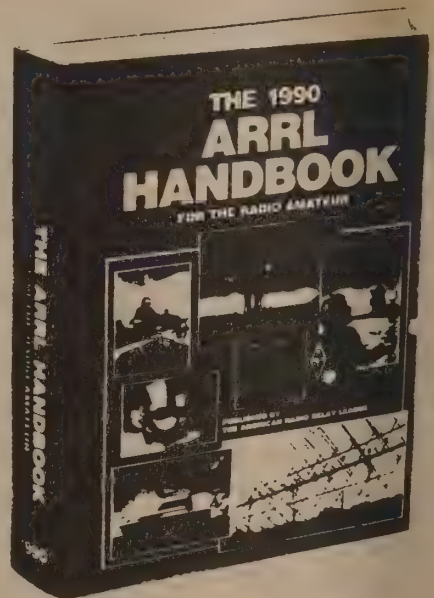
WANTED: HEATHKIT TWOER. Need not be in working condition, but must be cosmetically mint. Mike, N4PDY Phone (703) 430-8402 (01)

WANTED: A Unique Wire Tuner in clean condition. **SELL:** Yaesu FT 301 EE Transceiver, above mint condition. With spare finals - only \$385 plus UPS. **SELL:** Collins 75S1 Receiver, with matching speaker - \$185. **WANTED:** Millen Antenna Tuner, either low or high power version. Levy - W54QJT, 7600 Blanco Road #608, San Antonio, TX 78216 Phone (512) 341-9549 night (01)

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Also looking for 2½" diameter mast and heavy-duty mounting wall brackets. Call Bob - WB4FCR (202) 667-4240 in Washington, DC (01)

FOR SALE, Final Reduction -
DRAKE TR-4 amd MS-4 power supply and speaker, 300 watts PEP on SSB and 50 watts out on AM. Covers 10, 15, 20, 40 and 80 meter bands. Manual and some spare tubes \$125
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 Also 1/5 HP Delco motor \$5
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FOR SALE: COLLINS, KWM-2, with 516F-2 power supply & speaker & many spare tubes - \$500; AEA Pakratt 64 with HF Modem, F/U/W Commodore C-64 . \$200; two EA Commodore Vic-20 comuters, tape deck & many program tapes . \$75; Commodore 1525 printer - \$75; RTTY and card AIR-1, F/U/W Vic-20 \$50; Heath station control SB-630 . . \$40; Tektronix O'Scope Model 310 . . \$50; Waterman O'Scope 3" CRT \$25; Wilson Model Mark IV, 2-meter handheld with drop-in charger . . . \$75; Manuals for above equipment included; issues of QST 1922-23-24. Make reasonable offer. Call Lou - W4MLR, (301) 572-7116, Beltsville, MD (02)

FOR SALE: TEN-TEC TRITON II - converted to QRP, 5 watts output SSB and CW. Works FB \$200
TEN-TEC 12 VDC 18 Amp power supply w/speaker - Not working \$45
TEN-TEC 80-10 meter 100W amplifier "Brick" - Not working . . \$85
HEATHKIT HW-8, QRP CW, In Excellent condition \$135
HEATHKIT HW-9, QRP CW, w/WARC Bands and power supply, Perfect . . . \$350
HALLICRAFTER "Classic" HT-33B 80-10 meter, 1KW amplifier . . . \$365
D-104 Microphone on "G" stand . \$45
SANYO MBC-555 Dual Floppy MSDOS computer, CRT, WordStar \$475
Dick Hayman - K3DML, (301) 340-8251, Rockville, MD (02X)


STOCK QSL CARDS
100 for \$10.50. Shipping FREE.
Send SASE for Samples
K3UAL PRINT
1520 Jutewood Avenue
Hyattsville, MD 20785

INSTRUCTORS AND STUDENTS SAVE MONEY
GET YOUR AMATEUR RADIO CLASSS NEEDS
at a savings and in a timely fashion!
Save on all license and instructor's manuals, code keys, oscillators, calculators, etc.

TUNE IN THE WORLD WITH HAM RADIO Kit
(Lists \$19) 1-9 \$17.30; 10-up \$16.15)
New ANTENNA COMPENDIUM VOL 2 with disk
(List \$18) 1-9 \$16.40; 10-up \$15.05)
Savings on 1990 Handbooks and Callbooks
JWO SERVICES

12 Hickory Place, Camp Hill, PA 17011
(717) 737-0850 Mastercard/Visa
(C01)

WANTED: AMATEUR RADIO AUTOMOBILE CALL SIGN LICENSE PLATE FOR WASHINGTON DC AND DELAWARE. Cash or trade for plates from other states. Write Auto-Call Magazine, PO Box 7612, Falls Church, VA 22046-1452. Phone (703) 536-8469



WD4LCO (703) 751-8500
FAX (703) 751-8510

EDWARD G. FINN
Director of Operations

Washington House Photography, Inc.

WORLDWIDE CUSTOM LAB, DISPLAY & EXHIBIT PRODUCTION
885-E SOUTH PICKETT STREET • ALEXANDRIA, VA 22304 USA



1989

AUTO-CALL POLICY

PRODUCTION POLICY

Copy for Auto-Call will be accepted in any form — handwritten, typed, compatible computer disk or modem. (We use an IBM AT clone and WordPerfect 5.0 word processing program, Hayes compatible modem - 300 or 1200 baud.) All hard copy is re-typed to preserve uniformity of style in the magazine.

In determining space requirements, figure 80 12-pitch characters per line and 60 lines per page — including the space taken up by headings, photographs, etc. Either black-and-white or color photos can be used as long as the contrast is good. Master copy, which is to be reproduced directly, should be in black ink on white paper and should be in proper page ratio. Any copy can be reduced or enlarged as desired.

Columns from Foundation member clubs are eagerly solicited and any items of general Amateur Radio interest are most welcome. The editor does reserve the right to edit or reject any portion of any copy submitted and to make minor changes to make copy fit available space.

SHACK SALES

Deadline for copy is the 5th of the month preceding the publication date. Shack Sales will **NOT** be accepted over the telephone. Full address must be provided for our reference but need not be published. Each ad must include the call sign or the full name of the advertiser. If the full address is not included in the ad, we prefer to include the city along with a telephone number so that readers will know whether a long-distance charge is involved. The entire telephone number — including city and state — is counted as only one word. We do not count postal zip codes. Otherwise, each word, abbreviation, model number or group of letter/numbers is counted as one word. Remittance must accompany each ad.

See next column for additional information on advertising. For further information, phone the Auto-Call editor at (703) 536-8469, McLean, VA.

ADVERTISING

SHACK SALES

Non-commercial advertising of Amateur associated equipment is available to subscribers of Auto-Call at a rate of 3¢ per word — with a \$1.00 minimum. Commercial vendors and non-subscriber rate is 17¢ per word — with a \$5.50 minimum.

Special headings or special spacing may be used (e.g., one item per line) but such ads will be charged at a column inch rate — \$1.00 per column inch for non-commercial ads, \$5.50 per inch for commercial vendors and nonsubscribers.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone. Since no effort is made to investigate advertisers, no warranty can be implied.

DISPLAY ADS

DISPLAY ADS are "boxed" and may contain artwork or photographs. They may be placed along with the Shack Sales or displayed in other sections of the magazine. Requests for specific locations will be honored if practical but cannot be guaranteed.

Display ads are charged according to size and duration of run as shown below. All advertising must be pre-paid for at least the current month.

Rates per Issue

Page	Col.	inch	1 Year	6 Times	3 Times	1 Time
Full	18	\$75.00	\$90.00	\$100.00	\$105.00
1/2	9	55.00	65.00	71.00	75.00
1/3	6	40.00	46.00	51.00	54.00
1/4	4½	33.00	38.00	41.00	43.00
1/6	3	22.00	26.00	28.00	30.00
1/8	2¼	17.00	20.00	22.00	23.00
1/9	2	16.00	19.00	21.00	22.00
1/18	1	8.50	10.00	11.00	11.50

Based on camera-ready copy.
Extra charges for halftoning photos
and for in-house artwork or layout.

Copy must be received by the 5th of the month preceding publication date.
(e.g., Copy for June issue must be received by 5 May)

All Advertising Must be Pre-paid



JOIN ARRL

BENEFITS FOR YOU

QST, QSL Bureau, Awards, Low Cost Insurance, Operating Aids,
Government Liaison and More—Much More!

MEMBERSHIP APPLICATION

Name _____ Call _____

Street _____

City _____ Prov./State _____ PC/ZIP _____

\$25 in U.S. \$36 elsewhere (U.S. funds) Licensed amateurs, or age 65 or over, upon submitting proof of age, may request special dues rate of \$20 in the U.S. \$31 elsewhere, in U.S. funds. Persons age 17 and younger may qualify for special rates, write for application.

For postal purposes, fifty percent of dues is allocated to QST, the balance for membership.



Expires _____

Bank. No. _____ Expires _____

The American Radio Relay League

225 Main St.

Newington, CT. 06111

USA

AUTO

CALL

Atlantic Division Director
Hugh Turnbull, W3ABC
6903 Rhode Island Avenue
College Park, MD 20740
Phone: (301) 927-1797

Roanoke Division Director
John Kanode, N4MM
Rt 1, Box 73-A
Boyce, VA 22620
Phone: 703-837-1340

AUTO-CALL Magazine

P.O. Box 7612

Falls Church, VA 22046-1452

Please enter my NEW _____ RENEWAL _____ Subscription to Auto-Call

For 1 Year _____ 2 Years _____

(Subscription rate: \$6.00 per year)

(Sample copy of latest issue \$1.00)

NAME _____ CALL _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Make check payable to Foundation For Amateur Radio

JANUARY 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2 Antietam PG Wireless	3 MARC	4 AnneArundel	5 Mobileers Shenandoah	6 <u>EXAMS</u> College Park GW University Richmond Chesapeake
7	8 PVRC DOS	9 APL FARC	10 Laurel (Inf) MADRAS Pentagon --FAR--	11 Mt.Vernon No VA ARC	12 Alexandria SMARC Vienna <u>EXAMS</u> Pentagon	13 <u>EXAMS</u> Salisbury
14 <u>FROSTFEST</u>	15 Ole Va Hams SPARC	16 Antietam Arlington Woodbridge	17 Goddard MARC QCWA #137	18 Anne Arundel	19 RCARA Shenandoah	20 Cap.City Tri County <u>EXAMS</u> Laurel
21 <u>EXAMS</u> Baltimore	22	23	24 Laurel MADRAS	25 St.Mary's	26 Alexandria Vienna	27
28 Adventists <u>EXAMS</u> Hagerstown	29	30	31			

NCDXA Net every Sunday, 147.420 at 8:30 p.m.

AUTO-CALL

P.O. Box 7612

Falls Church, VA 22046-1452

ADDRESS CORRECTION REQUESTED

Nonprofit Organization
U.S. Postage Paid
Arlington, VA 22210
Permit 757



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PO BOX 31097
TEMPLE HILLS MD 20748